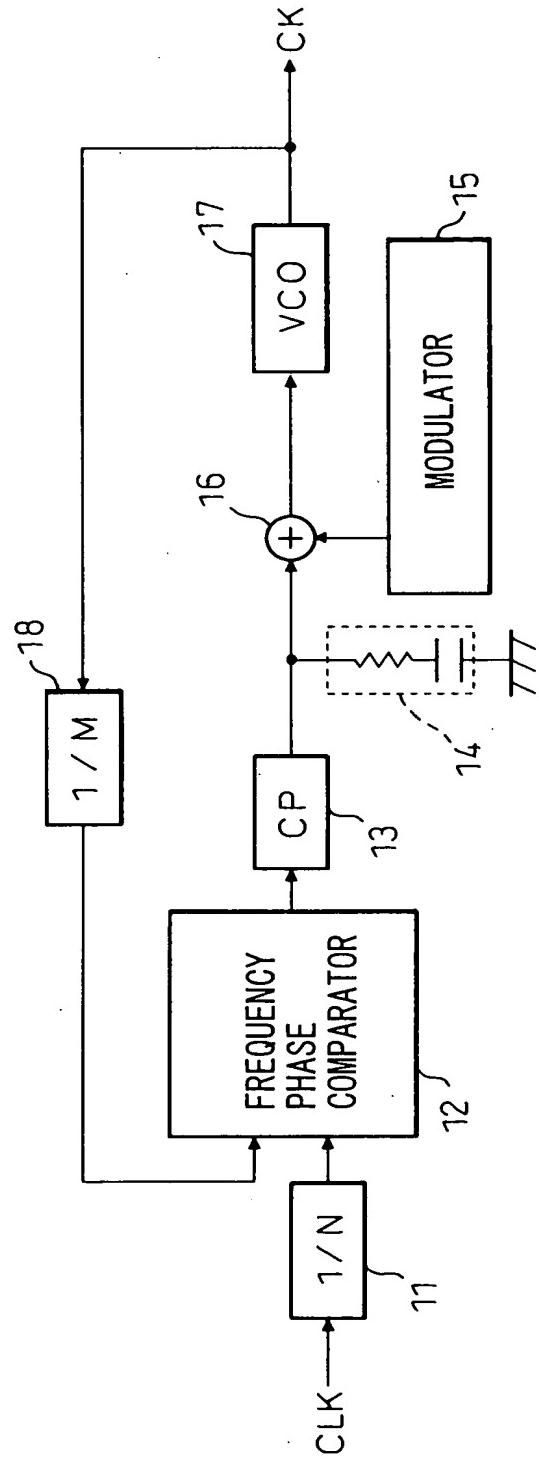


Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 1



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG.2

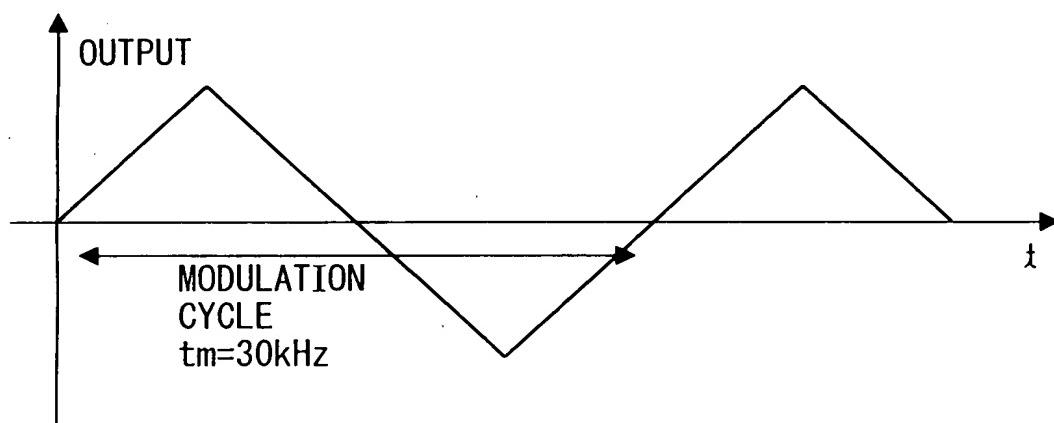
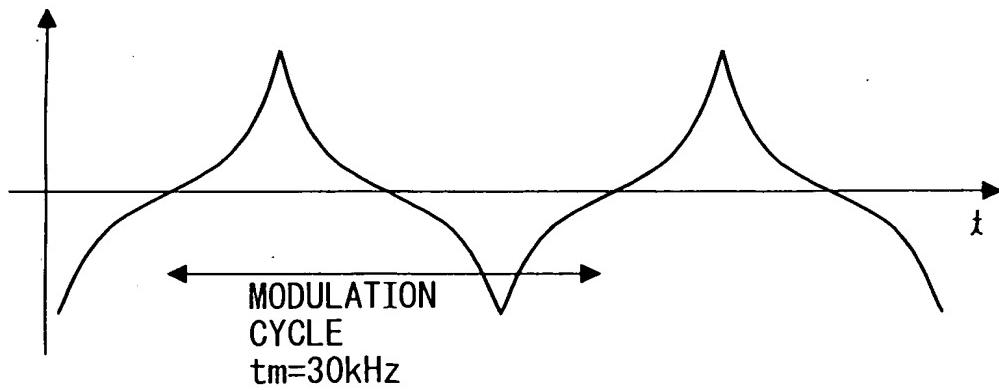


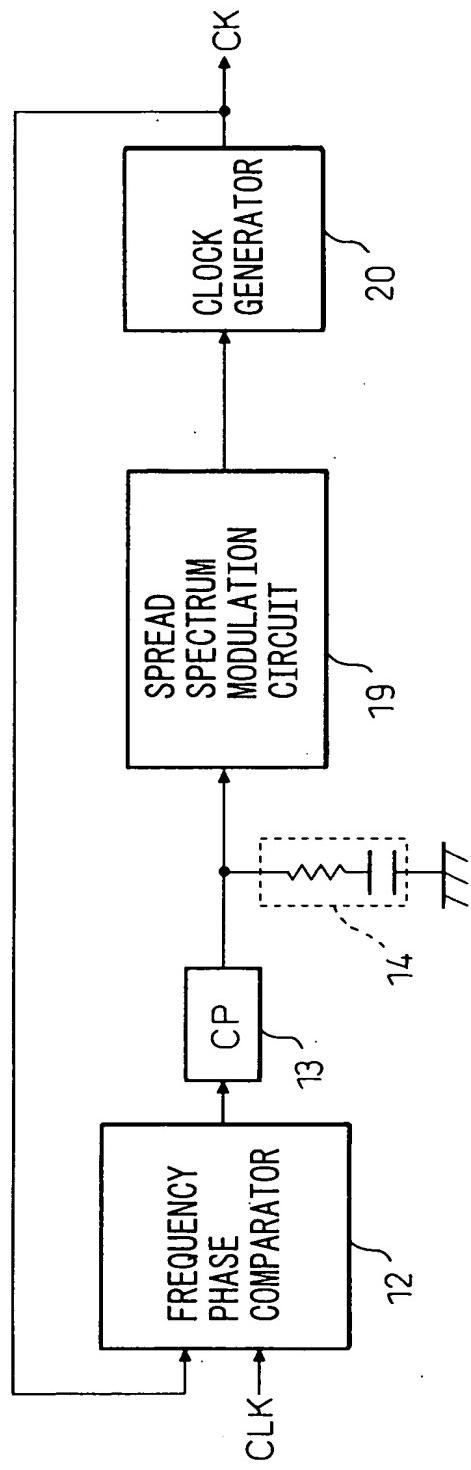
FIG.3



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appn. No.: Unknown  
Docket No.: 100021-00138

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FIG. 4



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER  
GENERATION CIRCUIT AND  
SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appn. No.: Unknown  
Docket No.: 100021-00138

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FIG.5A

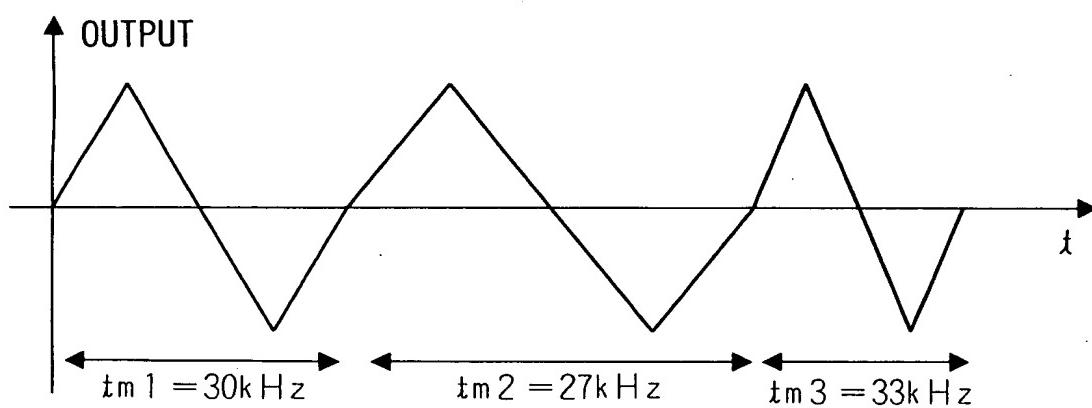
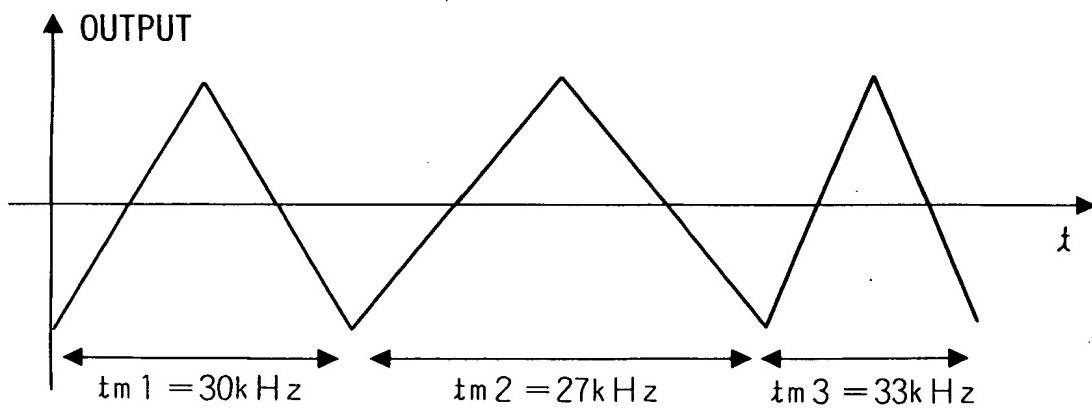


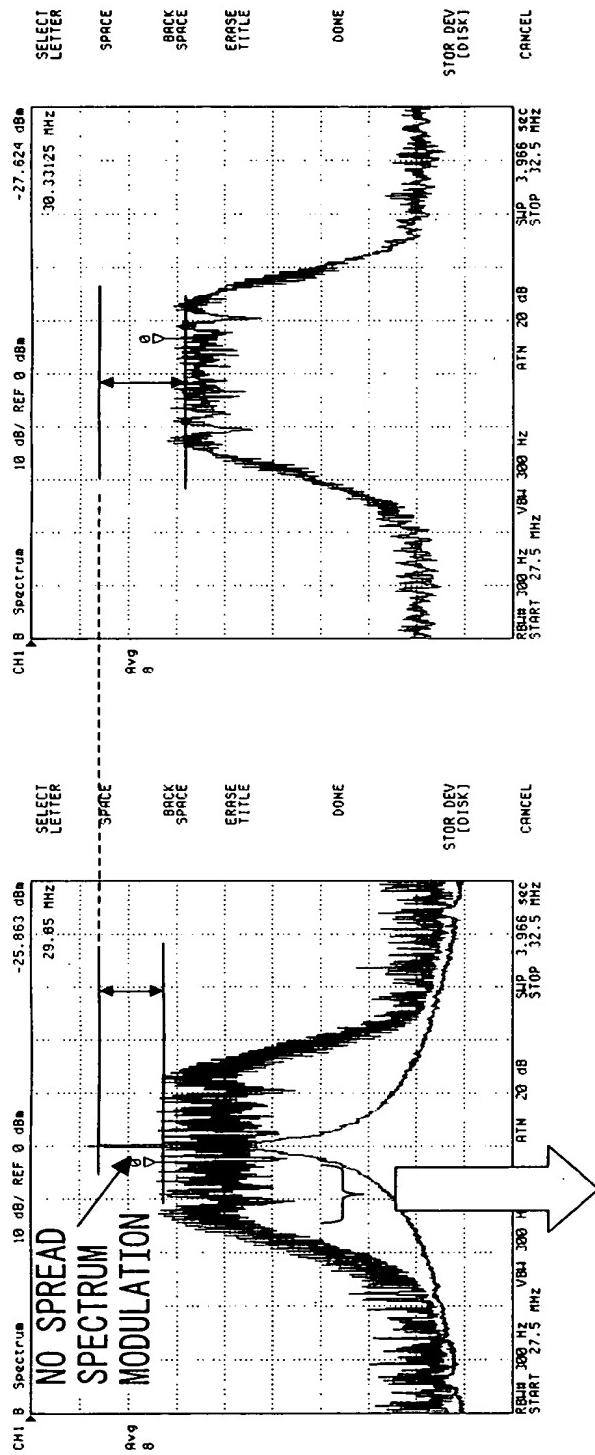
FIG.5B



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER  
GENERATION CIRCUIT AND  
SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 6A  
FIG. 6B



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER  
GENERATION CIRCUIT AND  
SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG.7A

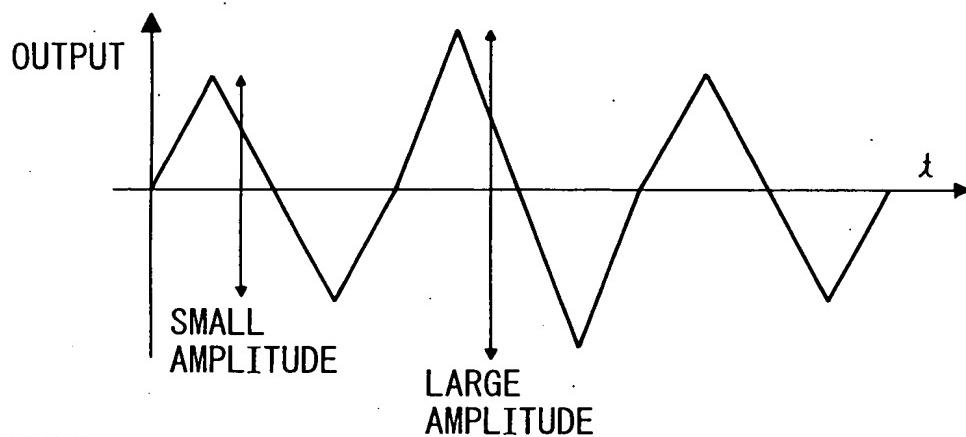
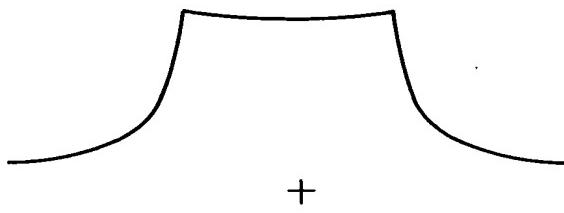


FIG.7B

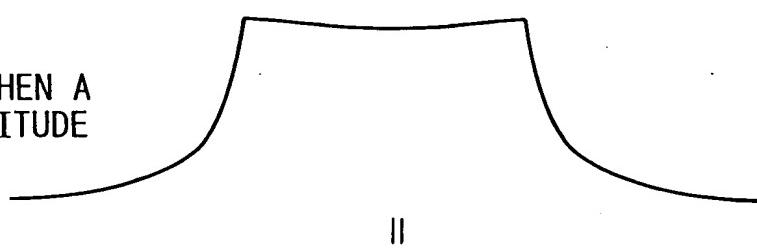
SPECTRUM WHEN A  
SMALL AMPLITUDE  
IS APPLIED



+

FIG.7C

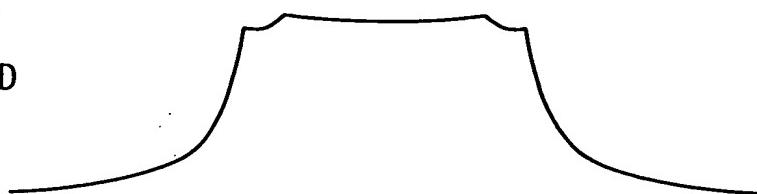
SPECTRUM WHEN A  
LARGE AMPLITUDE  
IS APPLIED



||

FIG.7D

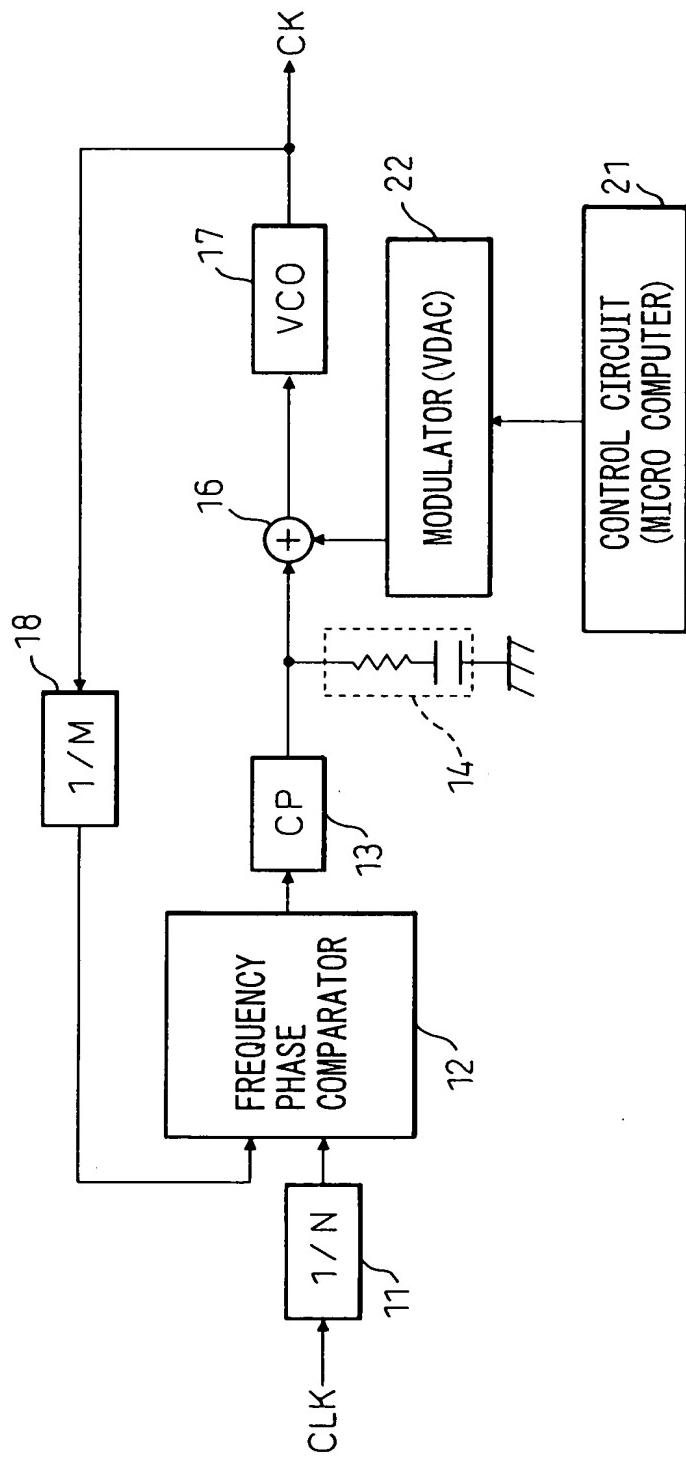
SYNTHESIZED  
SPECTRUM



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER  
GENERATION CIRCUIT AND  
SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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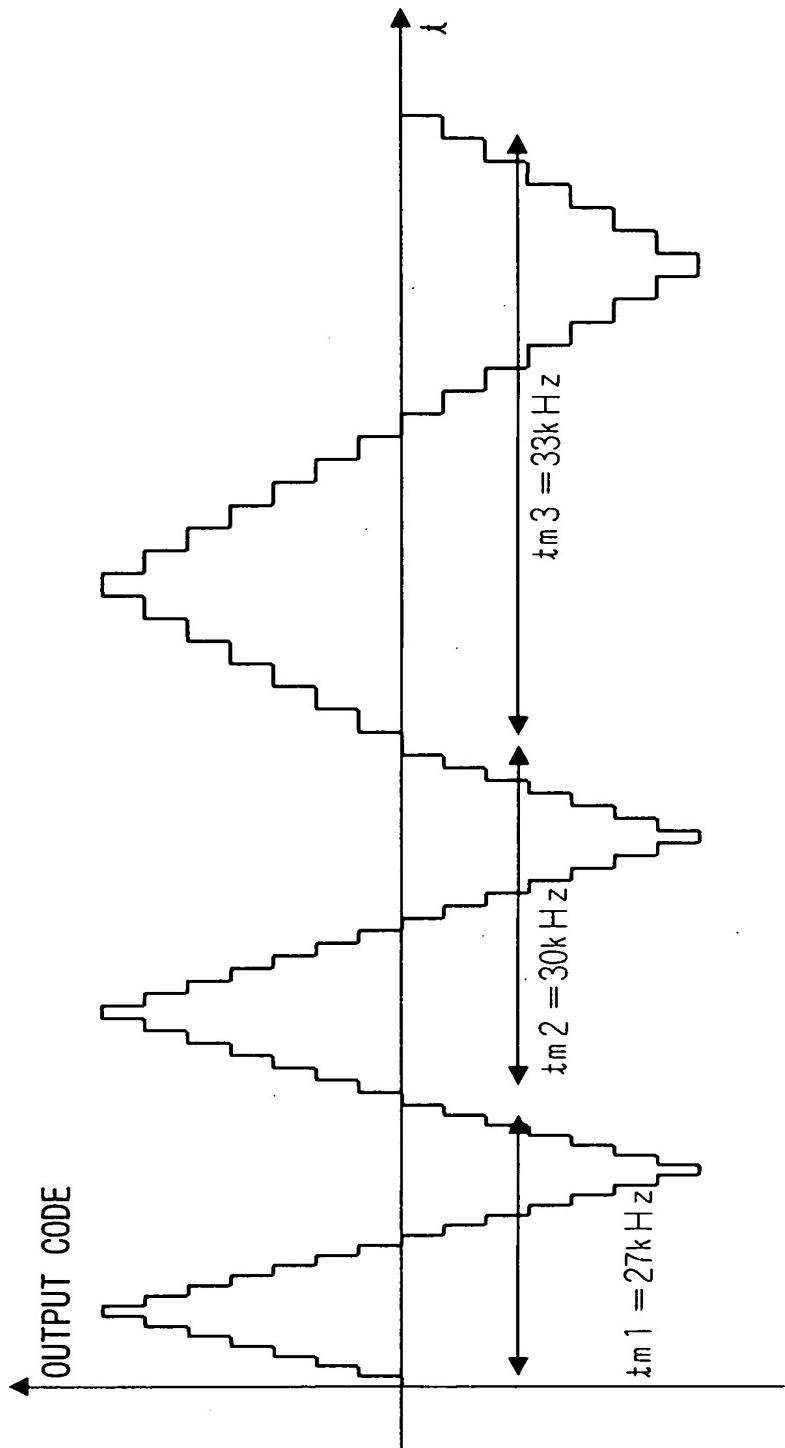
FIG. 8



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER  
GENERATION CIRCUIT AND  
SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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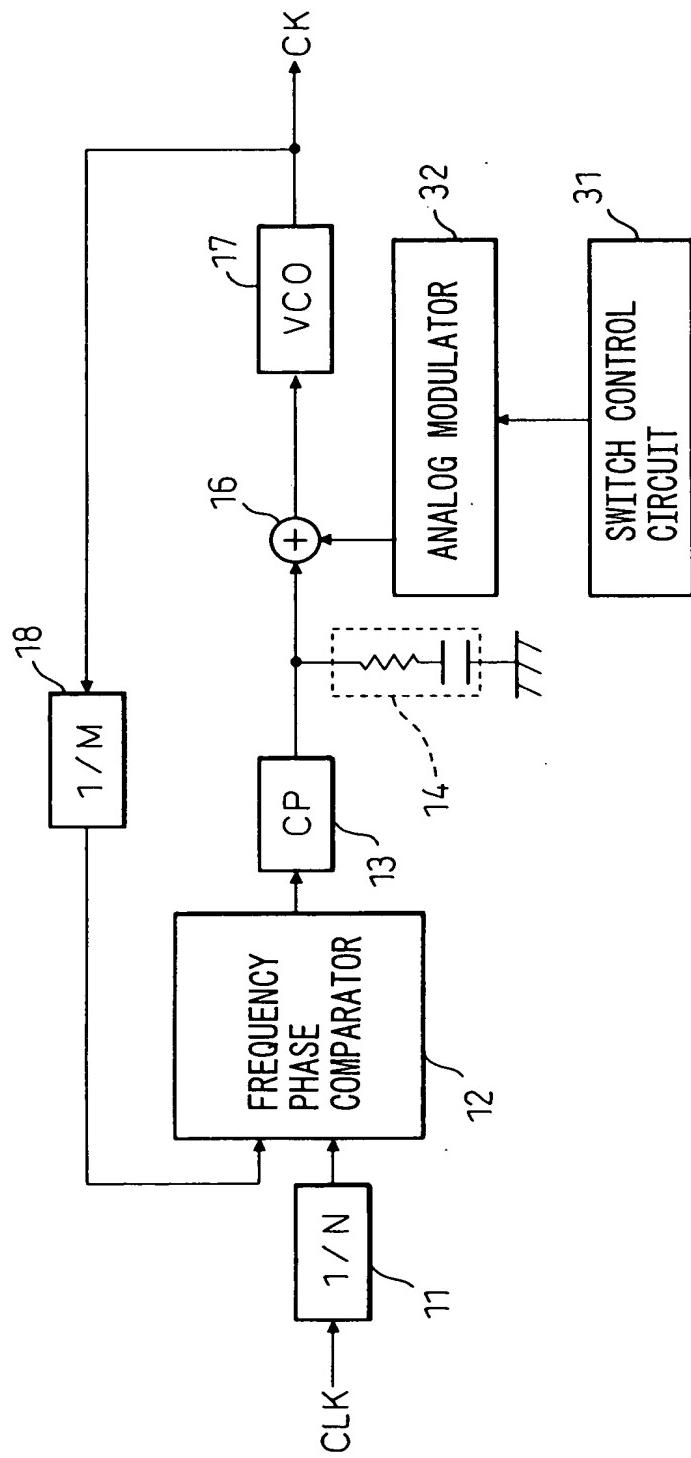
FIG. 9



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER  
GENERATION CIRCUIT AND  
SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

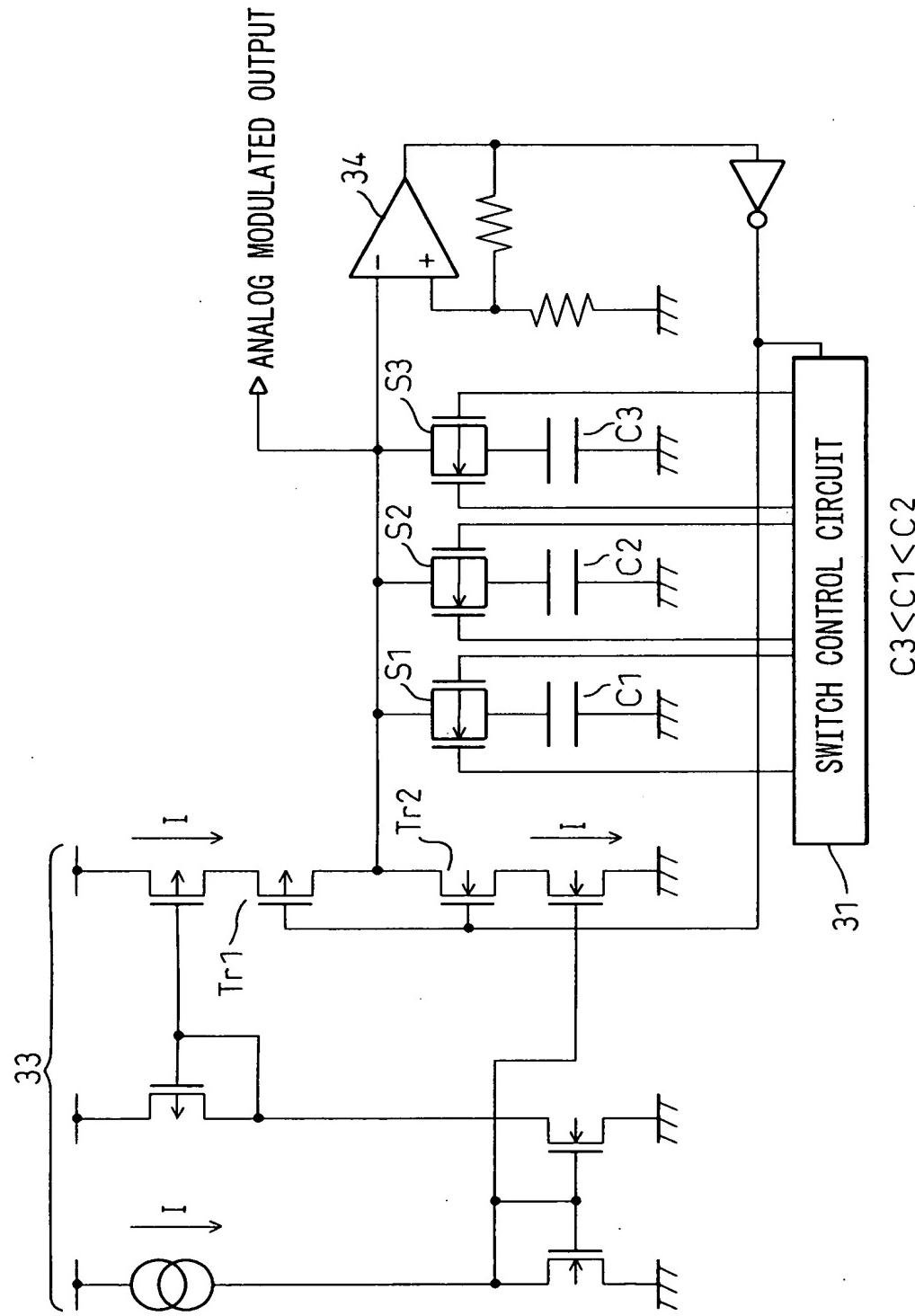
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FIG. 10



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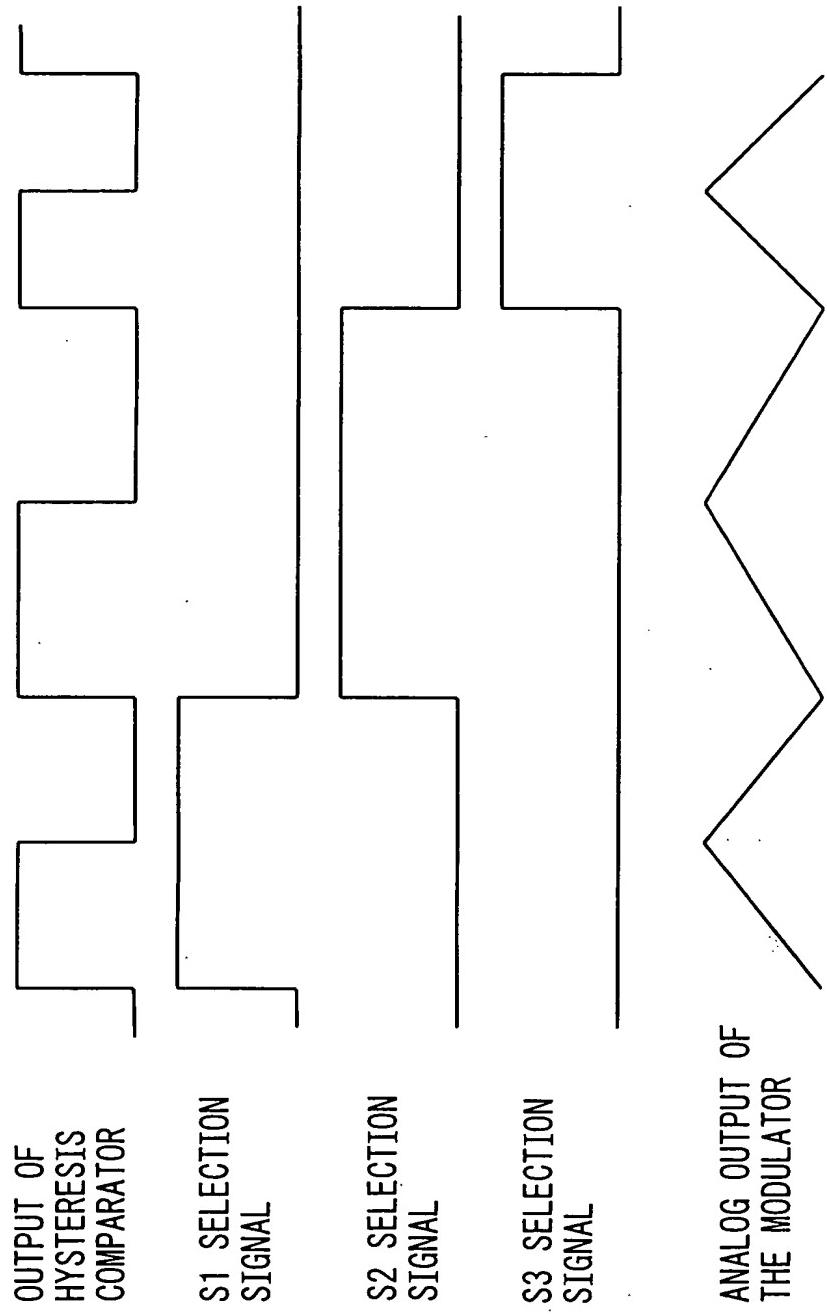
FIG.



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER  
GENERATION CIRCUIT AND  
SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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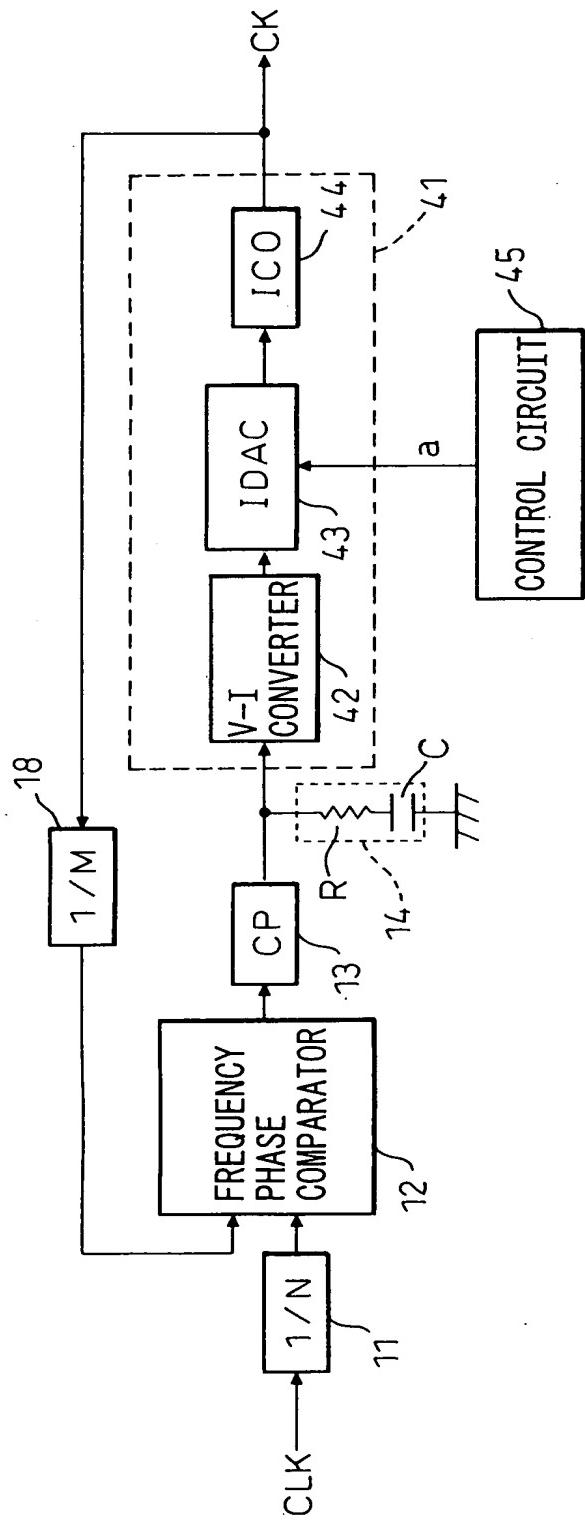
FIG.12



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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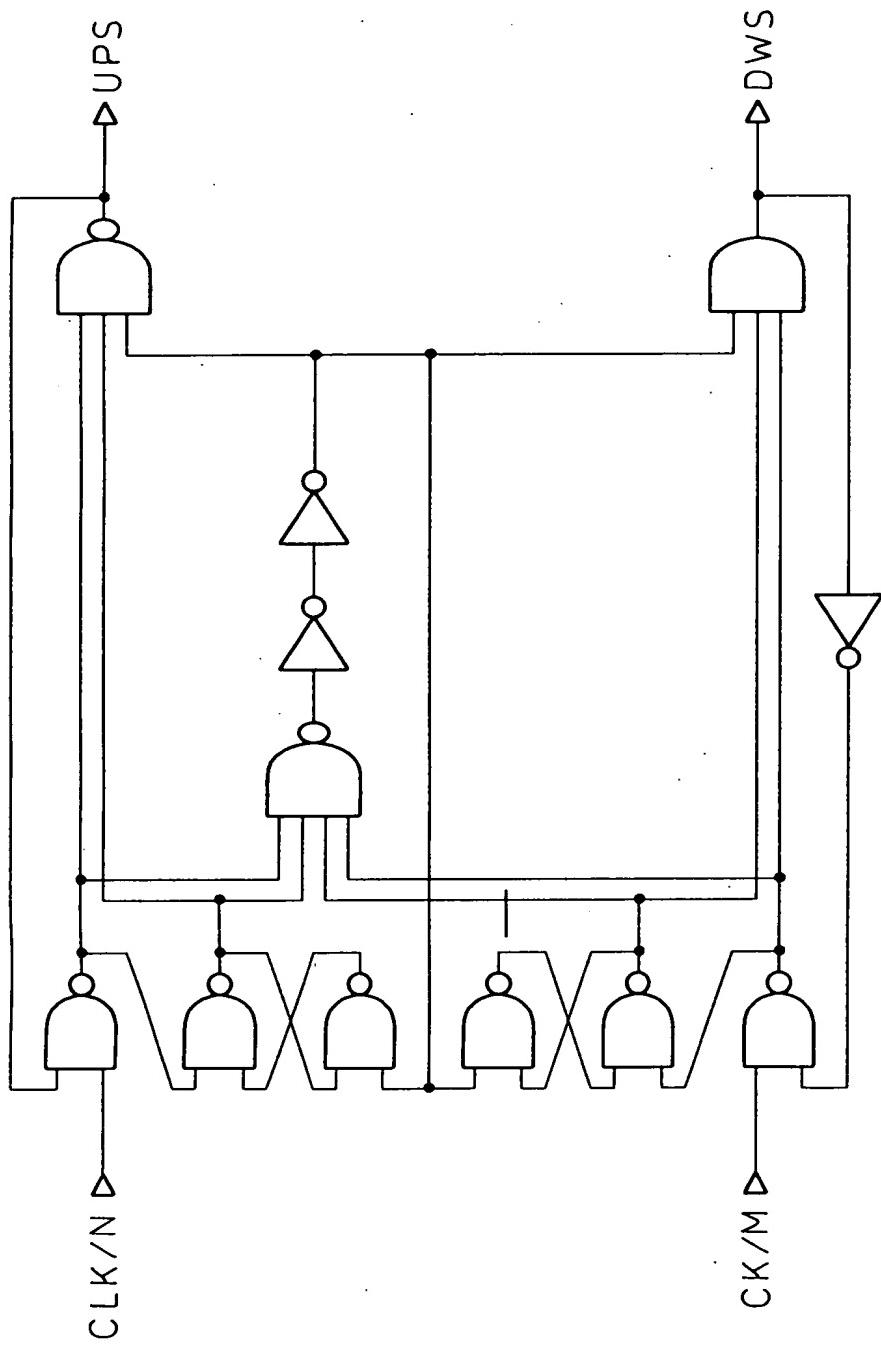
FIG. 13



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 14



Title: SPREAD SPECTRUM CLOCK  
 GENERATION CIRCUIT, JITTER GENERATION  
 CIRCUIT AND SEMICONDUCTOR DEVICE  
 Inventor: MIYATA, et al.  
 Appln. No.: Unknown  
 Docket No.: 100021-00138

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FIG.15

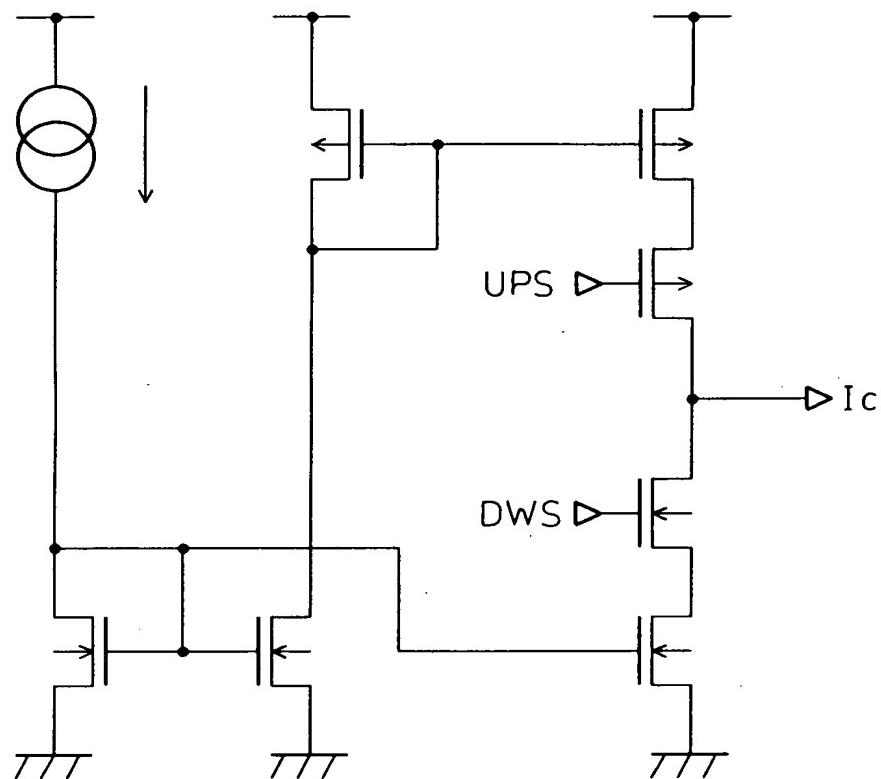
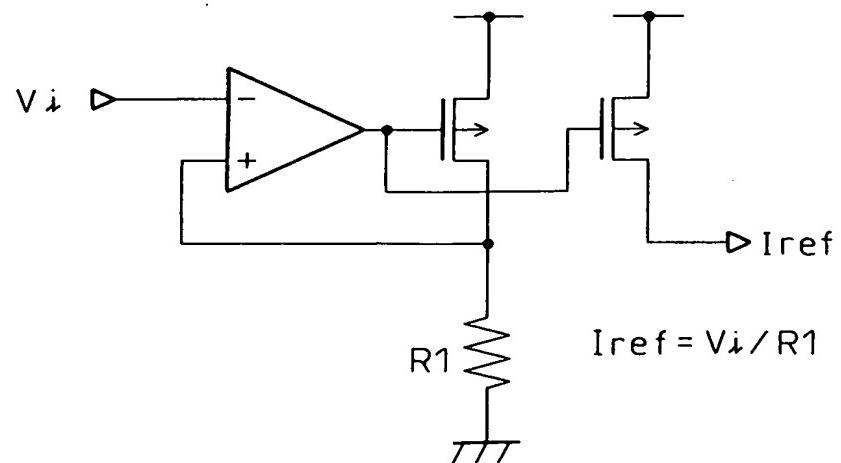


FIG.16



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 17

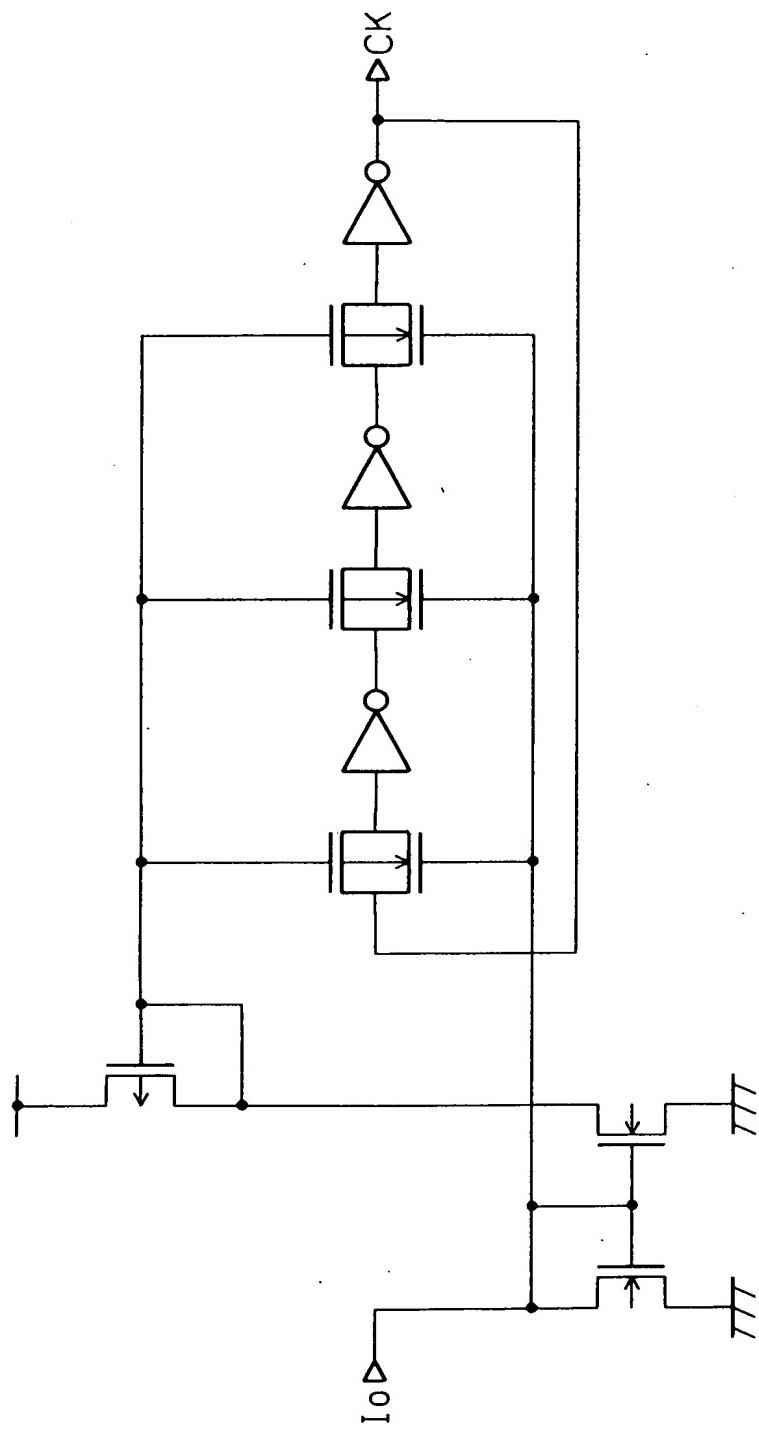
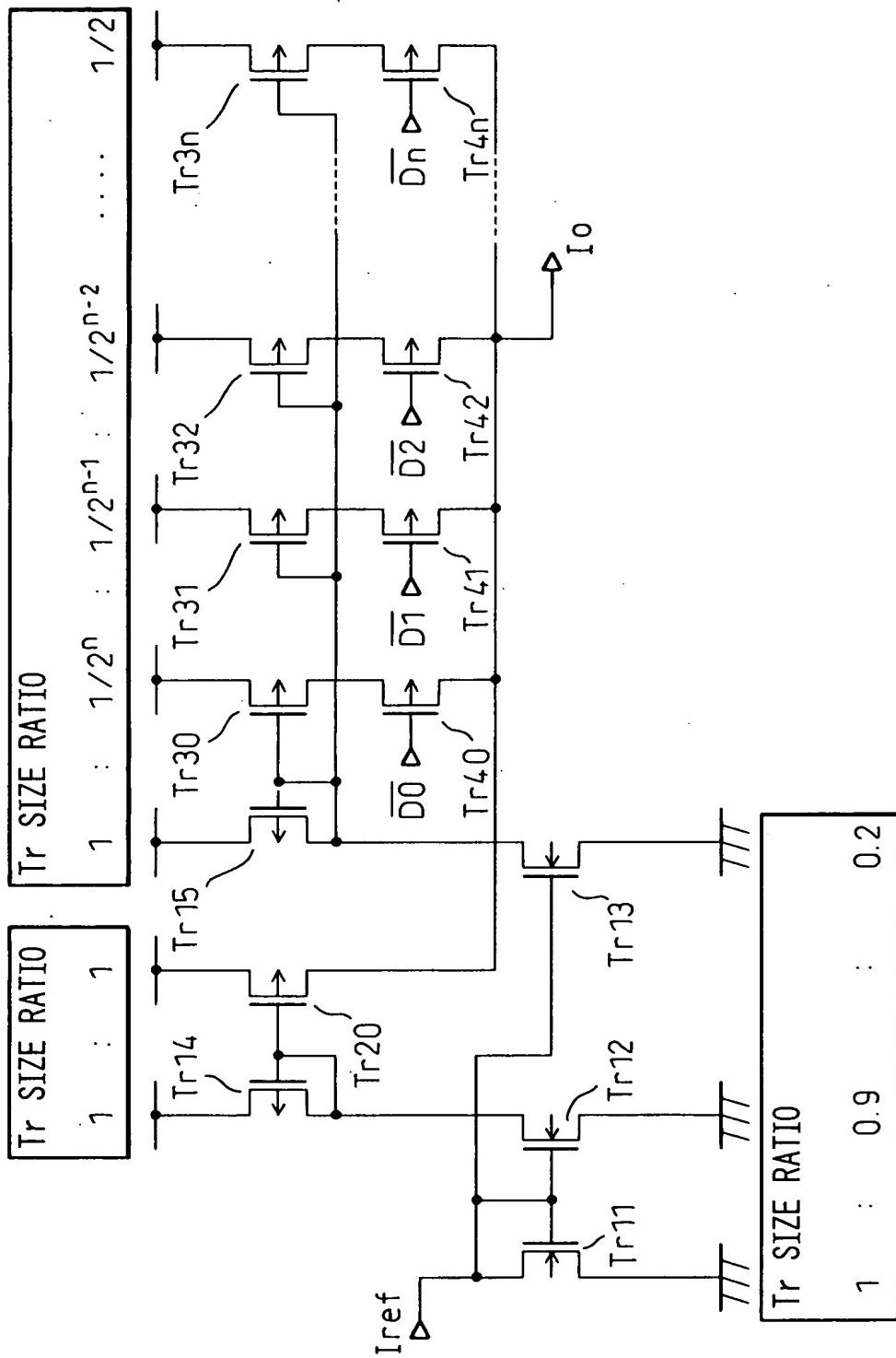


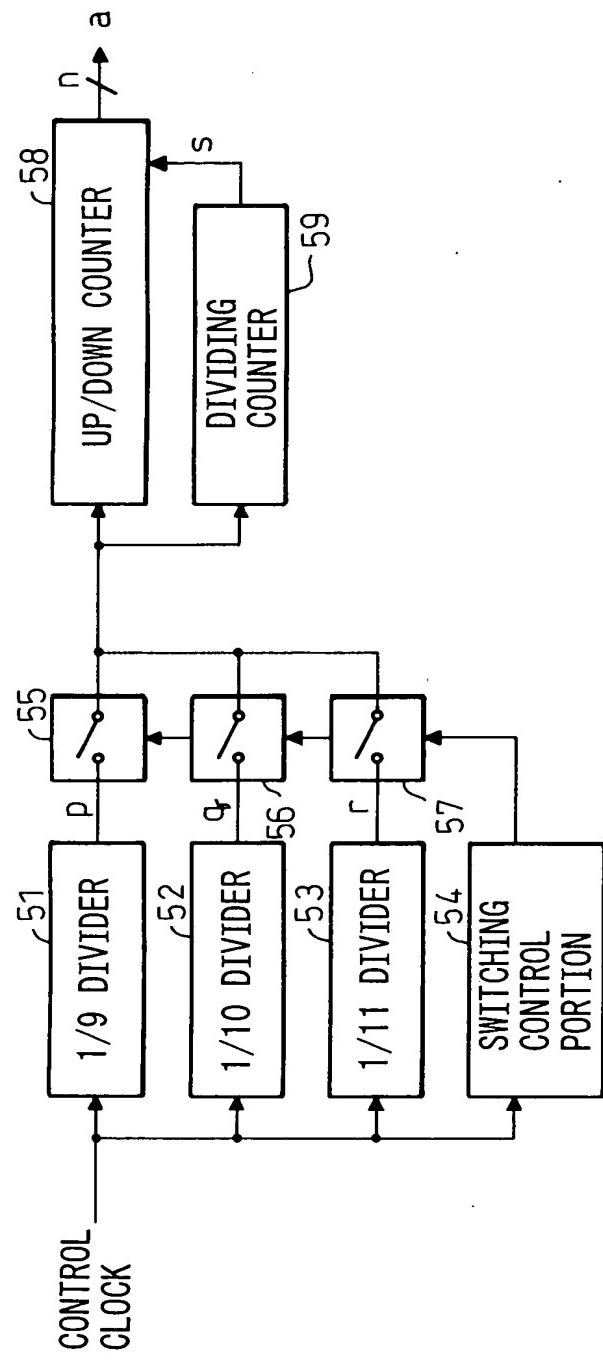
FIG. 18



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appn. No.: Unknown  
Docket No.: 100021-00138

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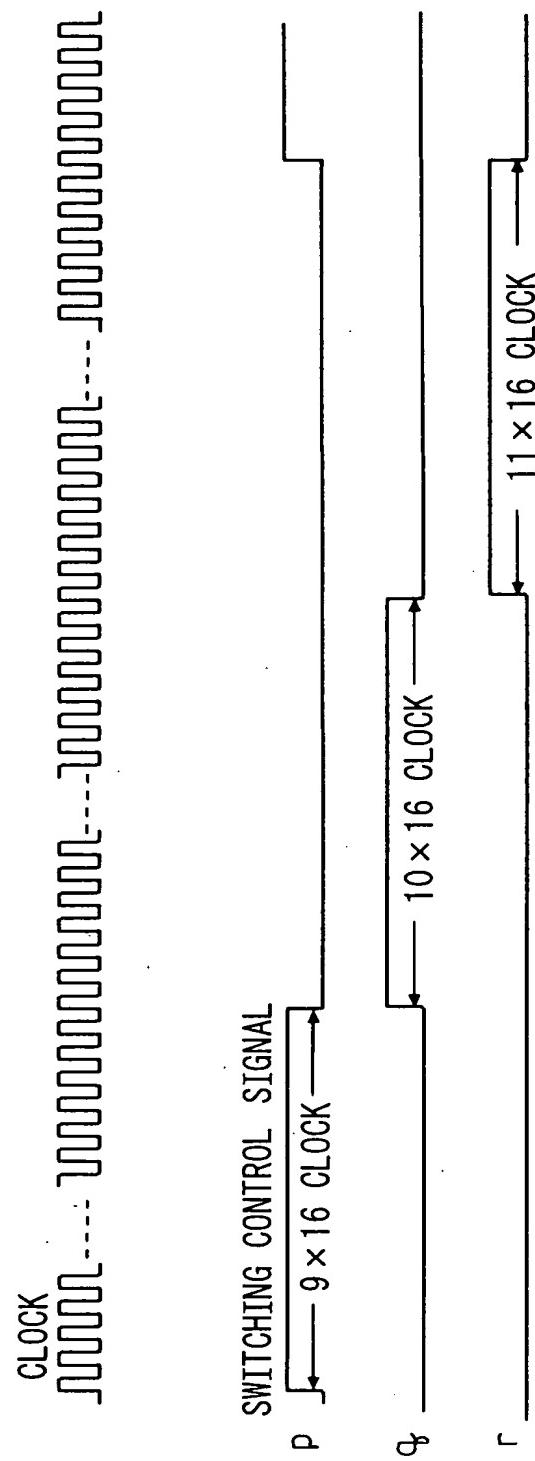
FIG. 19



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appn. No.: Unknown  
Docket No.: 100021-00138

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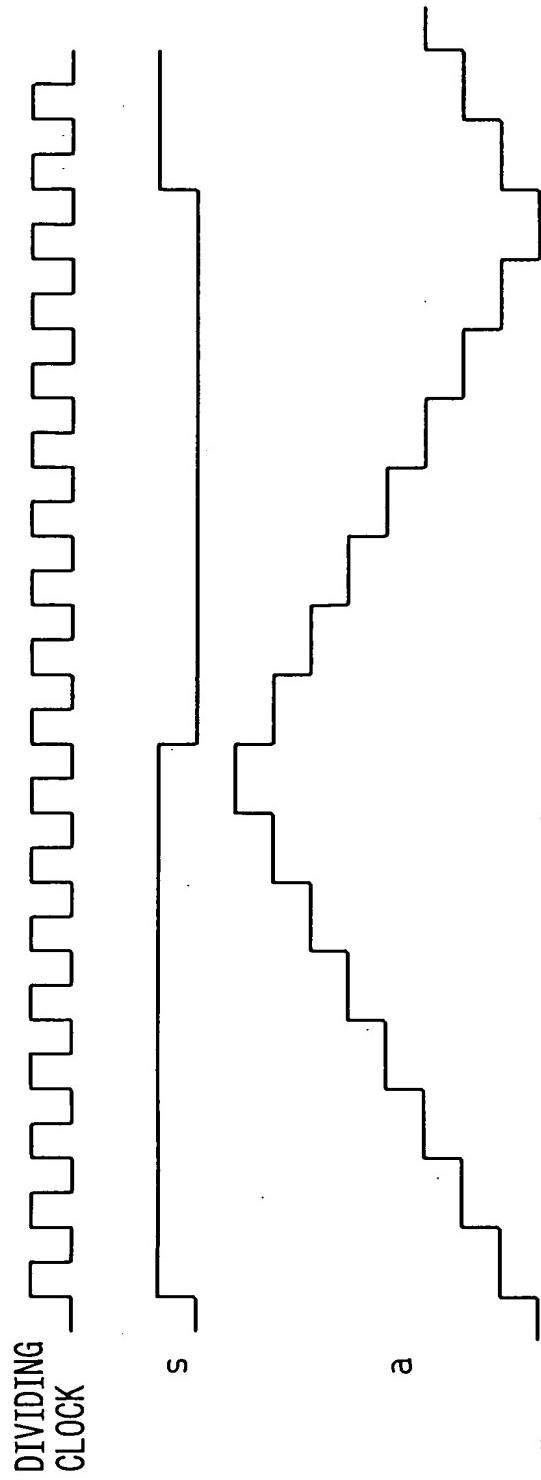
FIG. 20



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 21



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appn. No.: Unknown  
Docket No.: 100021-00138

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FIG. 22

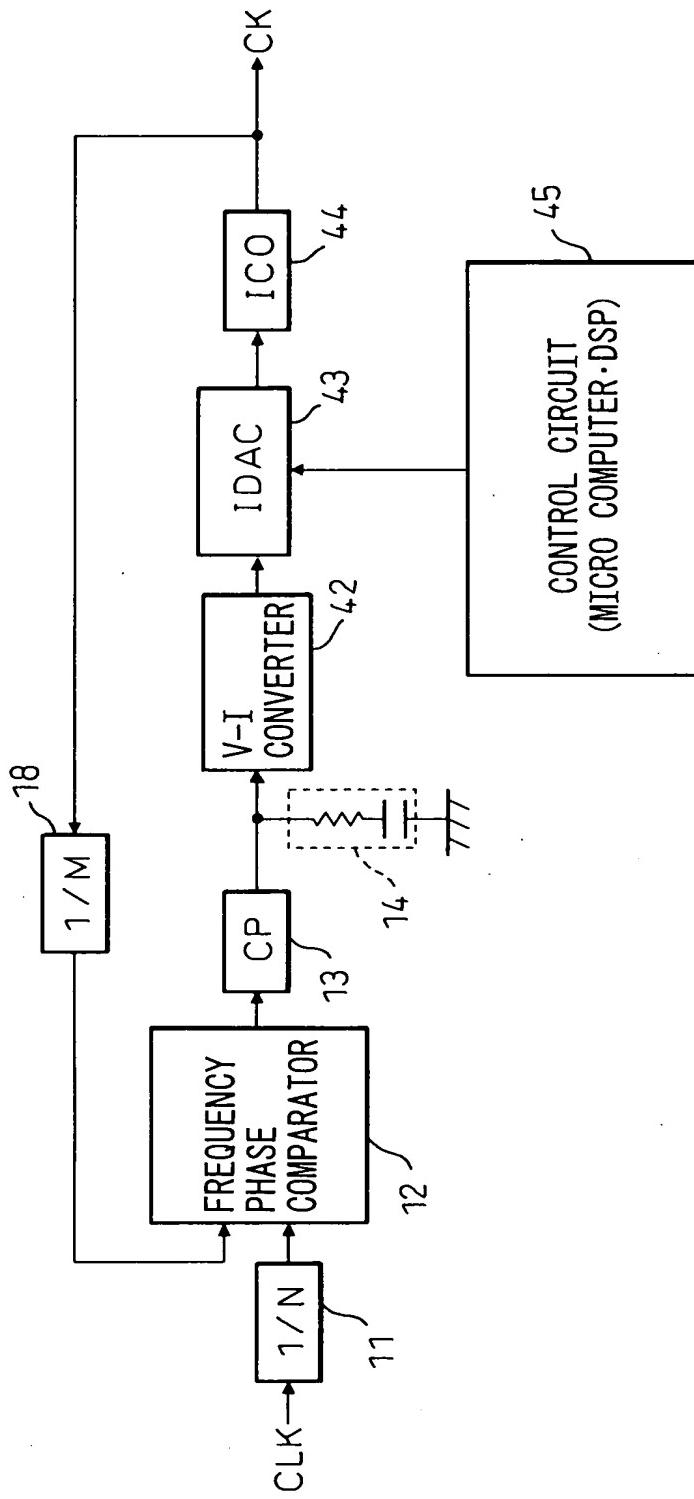
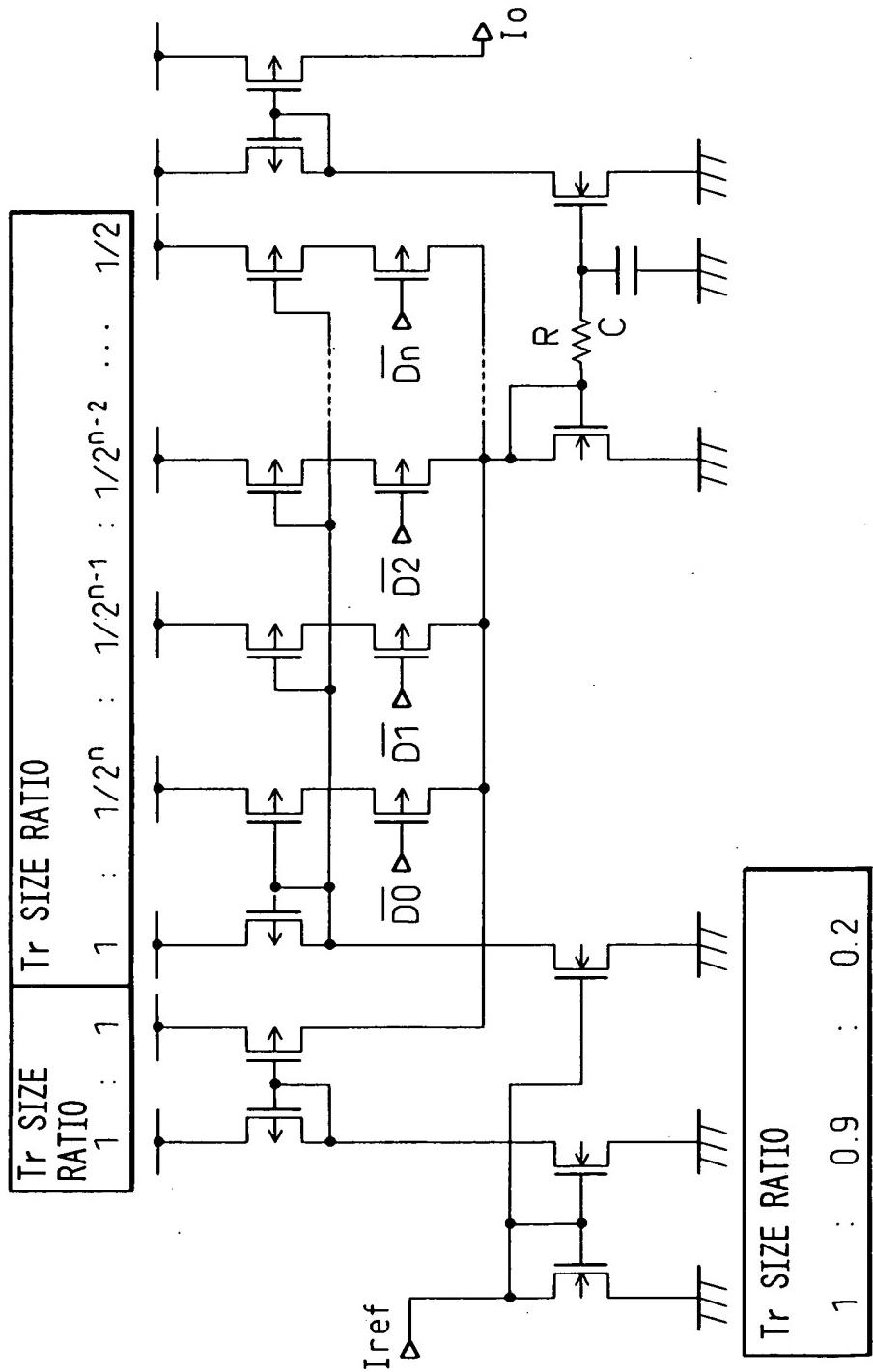


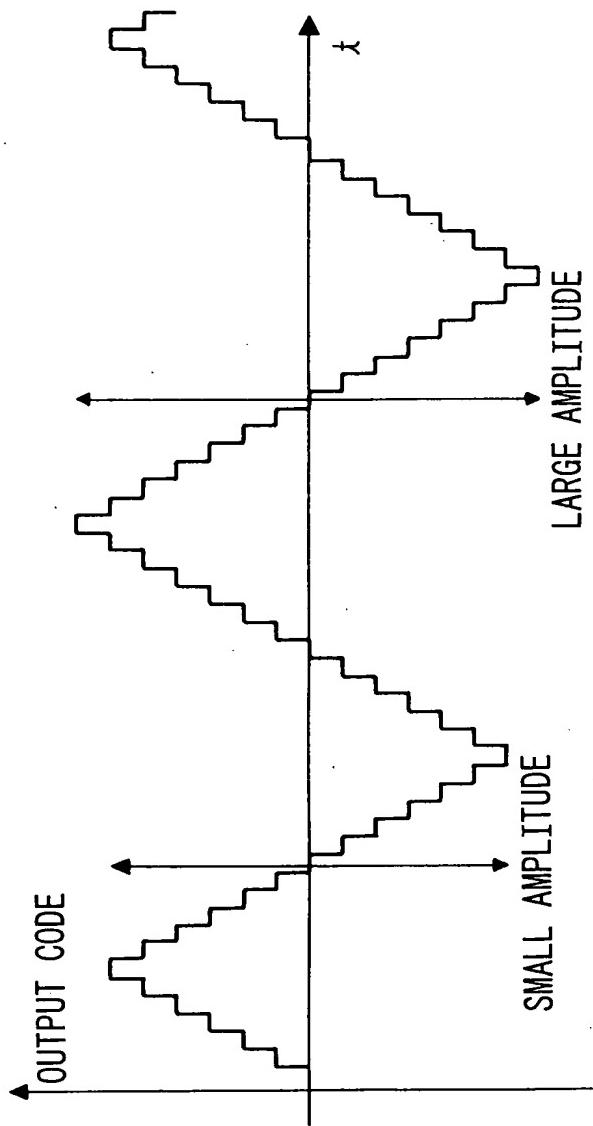
FIG. 23



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 24



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 25A

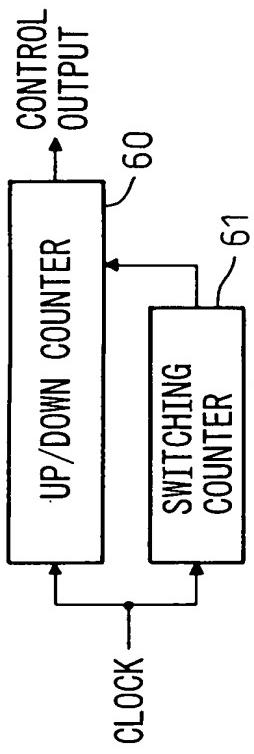
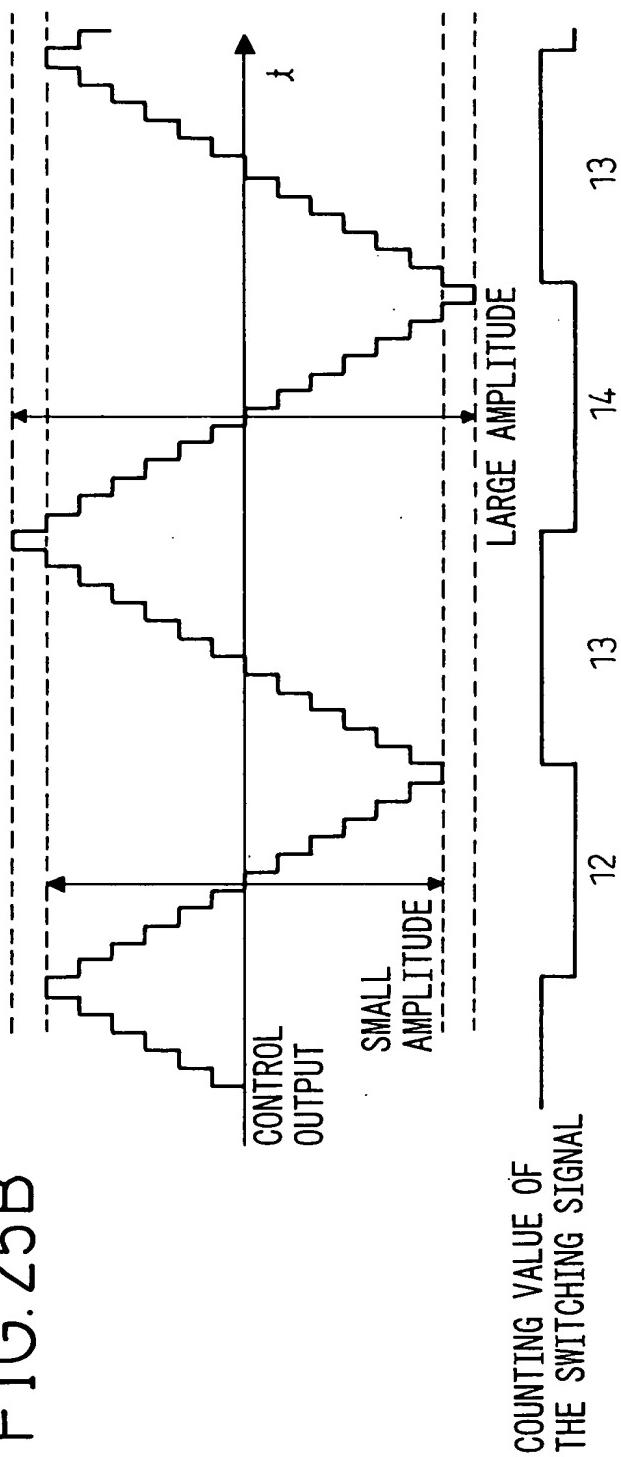


FIG. 25B



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appn. No.: Unknown  
Docket No.: 100021-00138

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FIG.26A

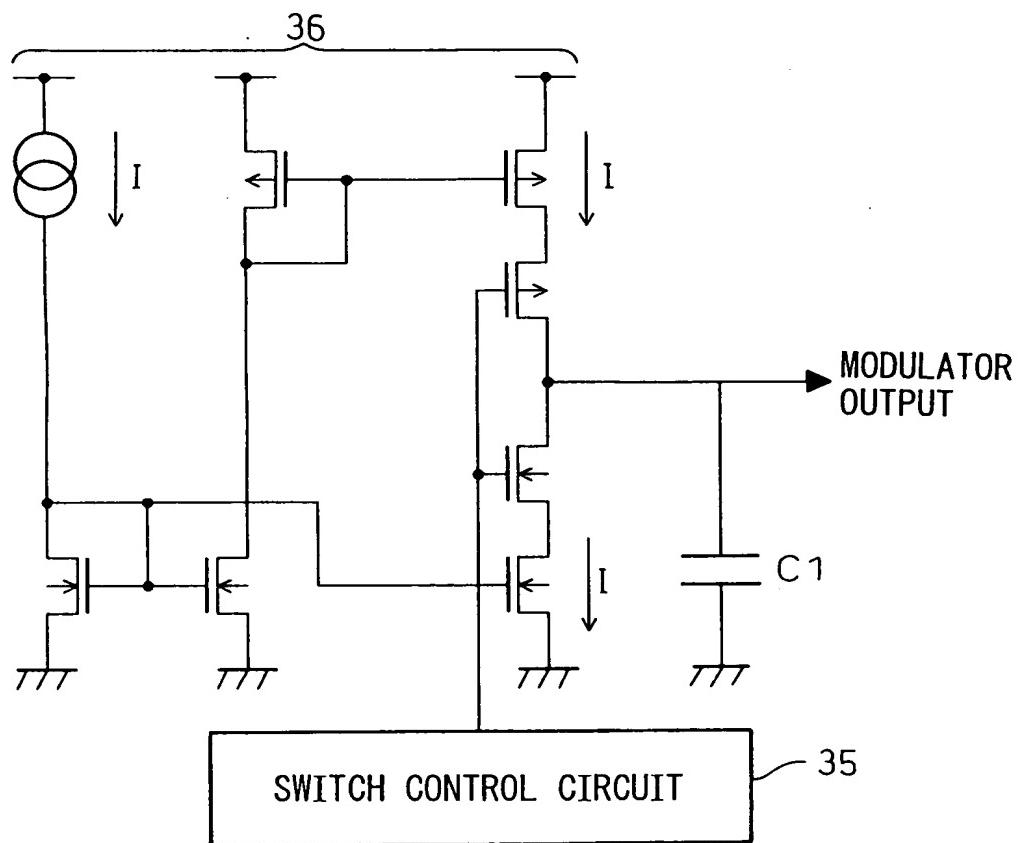
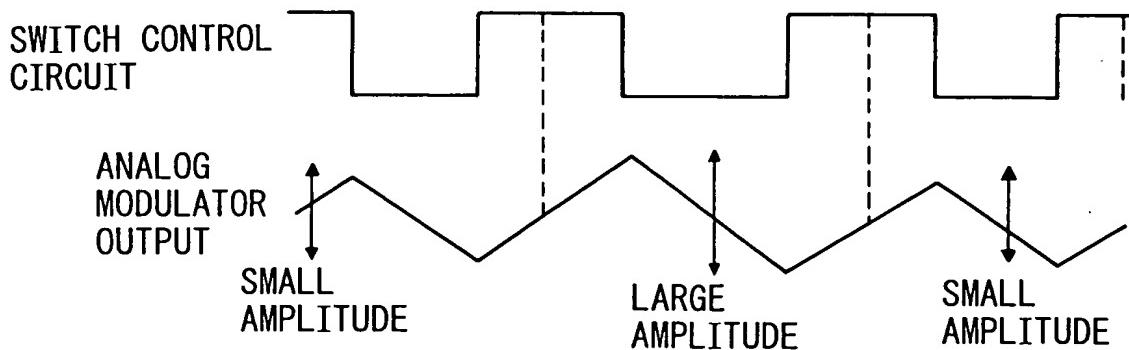


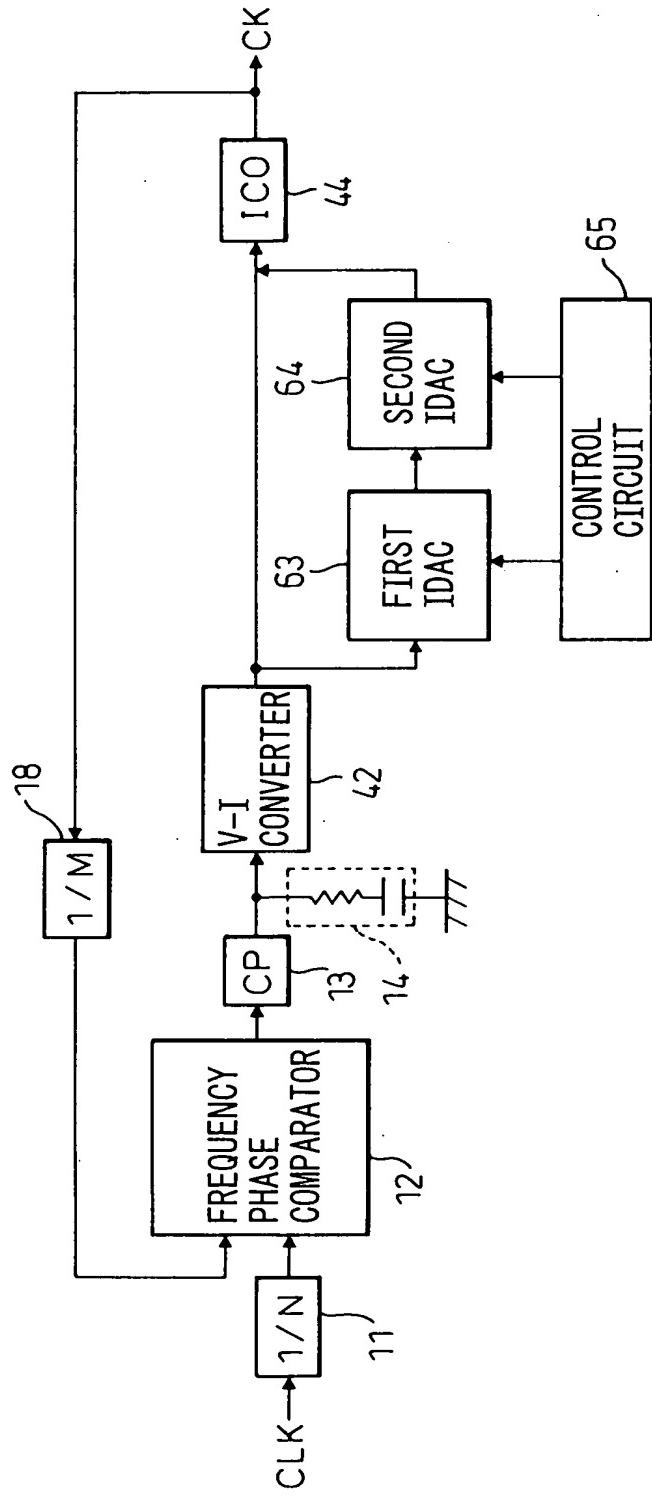
FIG.26B



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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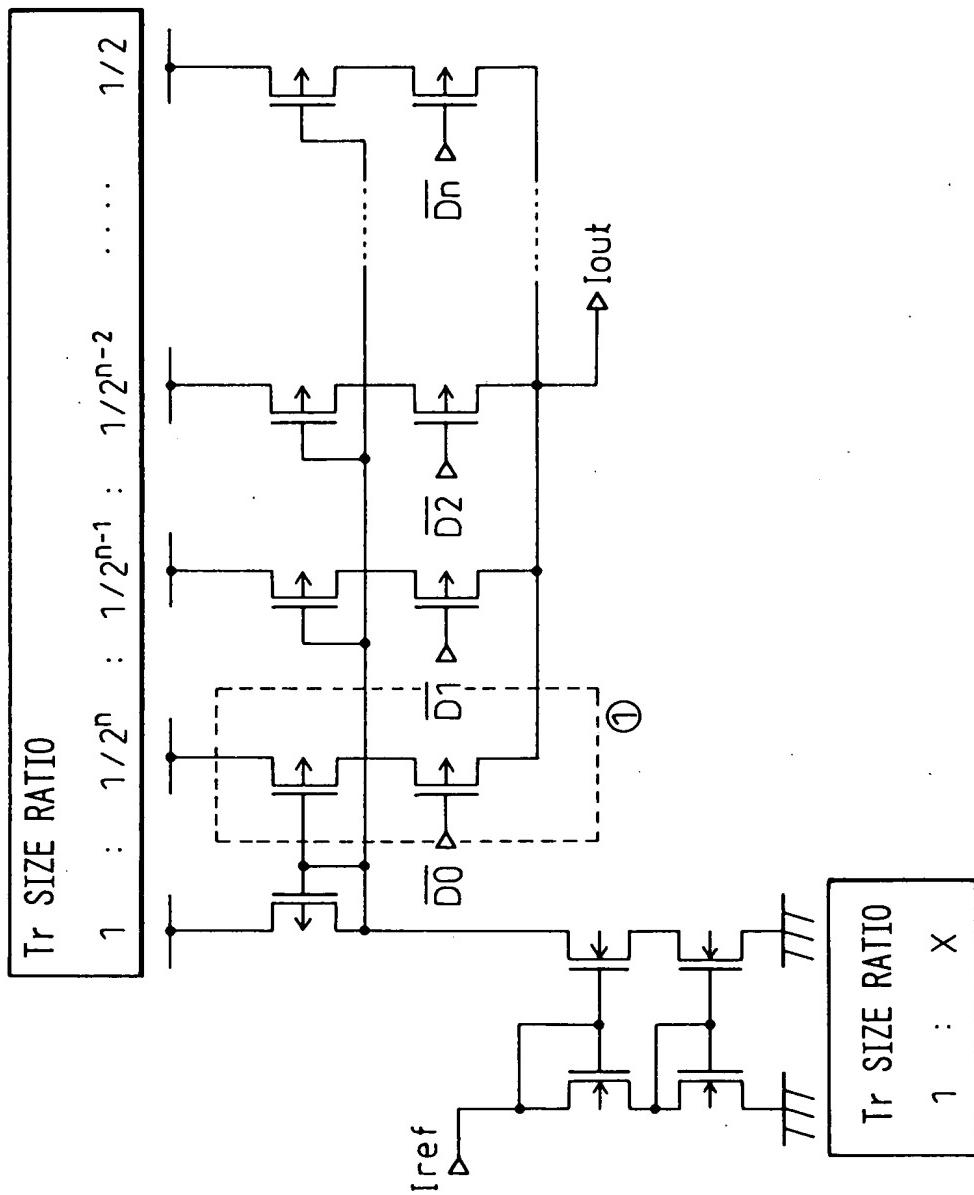
FIG. 27



Title: SPREAD SPECTRUM CLOCK  
 GENERATION CIRCUIT, JITTER GENERATION  
 CIRCUIT AND SEMICONDUCTOR DEVICE  
 Inventor: MIYATA, et al.  
 Appln. No.: Unknown  
 Docket No.: 100021-00138

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FIG. 28



Title: SPREAD SPECTRUM CLOCK  
 GENERATION CIRCUIT, JITTER GENERATION  
 CIRCUIT AND SEMICONDUCTOR DEVICE  
 Inventor: MIYATA, et al.  
 Appln. No.: Unknown  
 Docket No.: 100021-00138

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FIG. 29

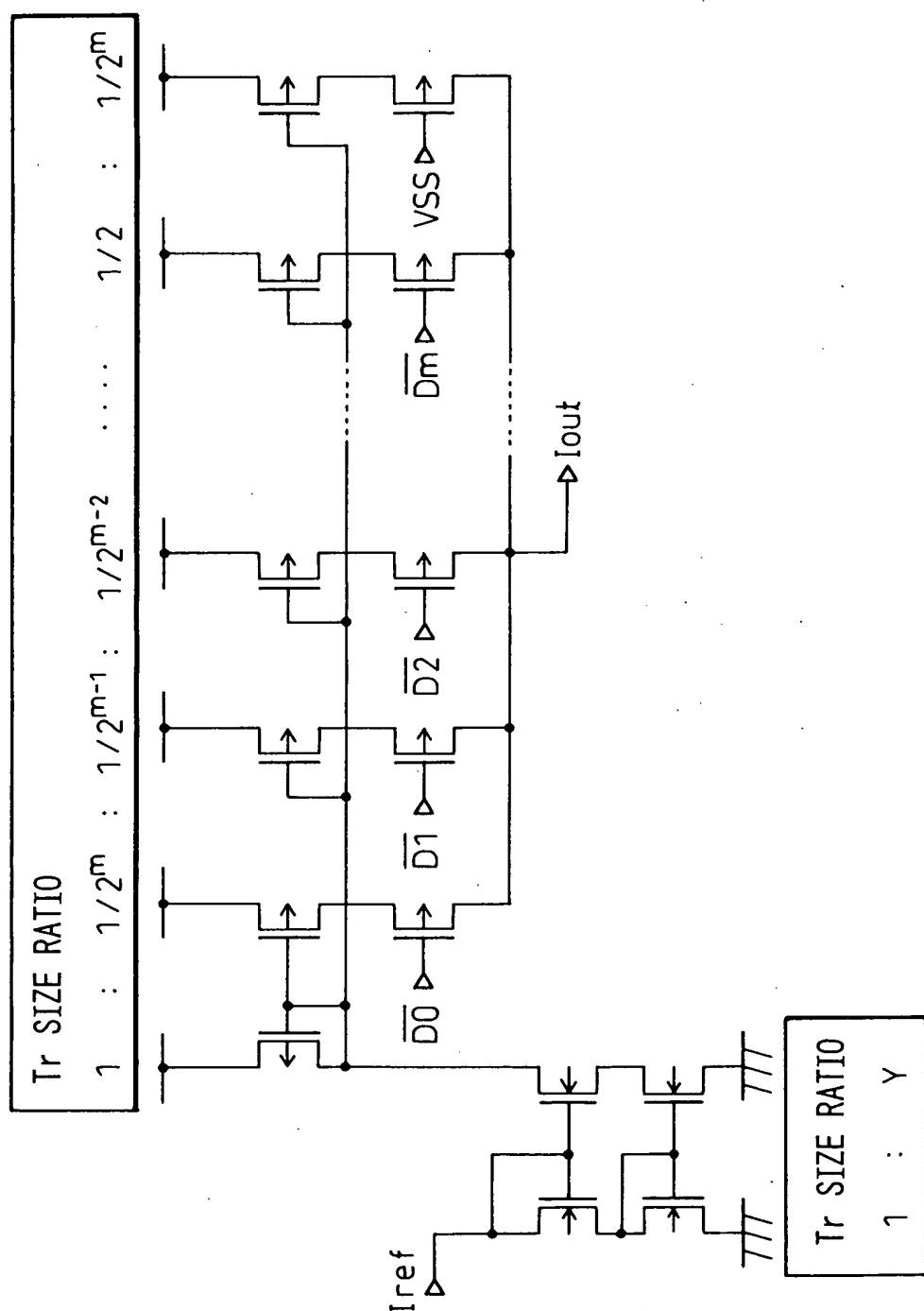


FIG.30A

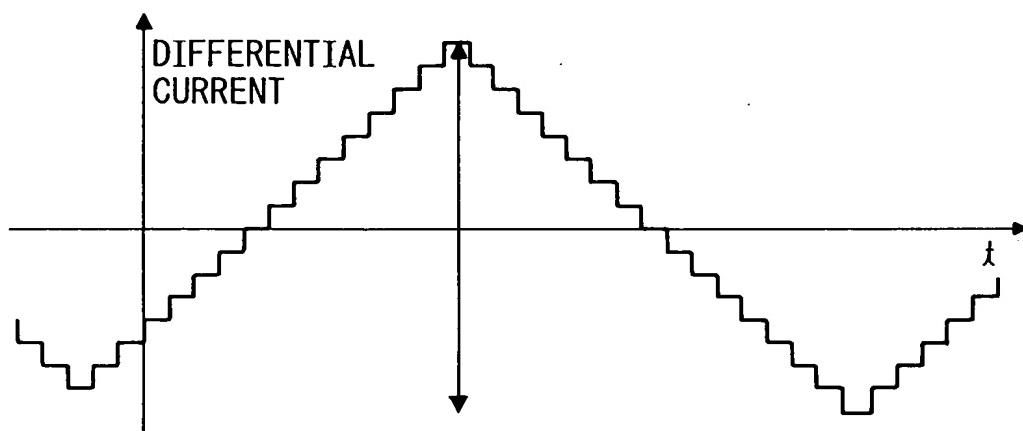


FIG.30B

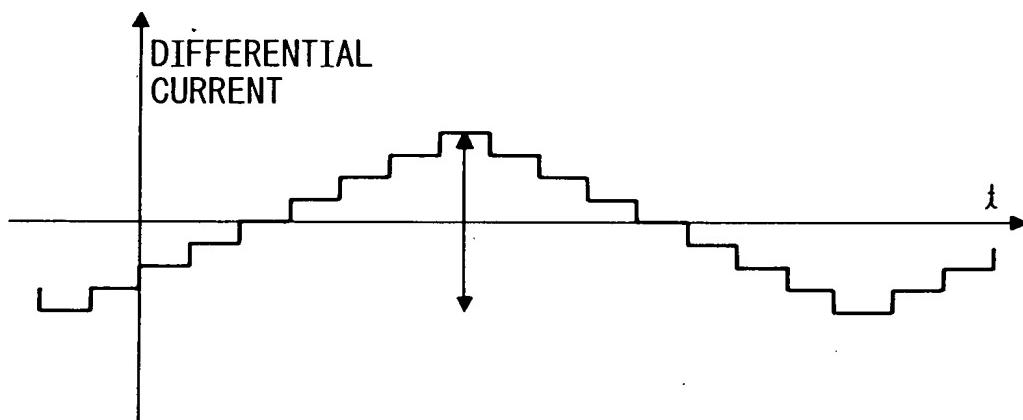


FIG.30C

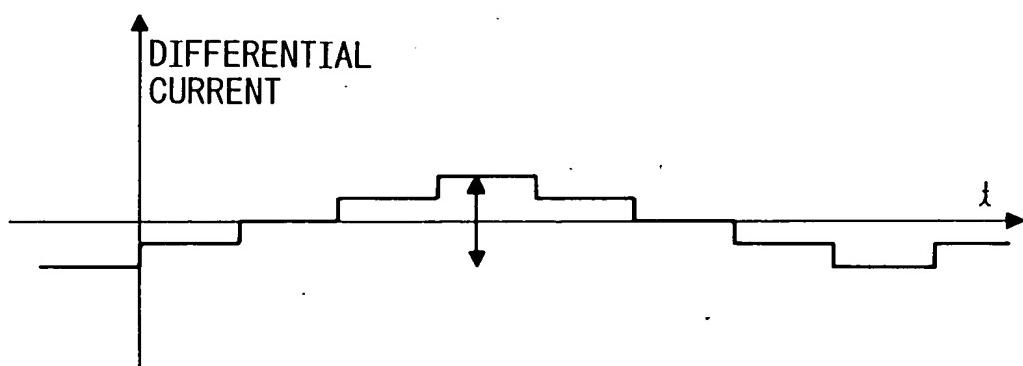


FIG. 31A

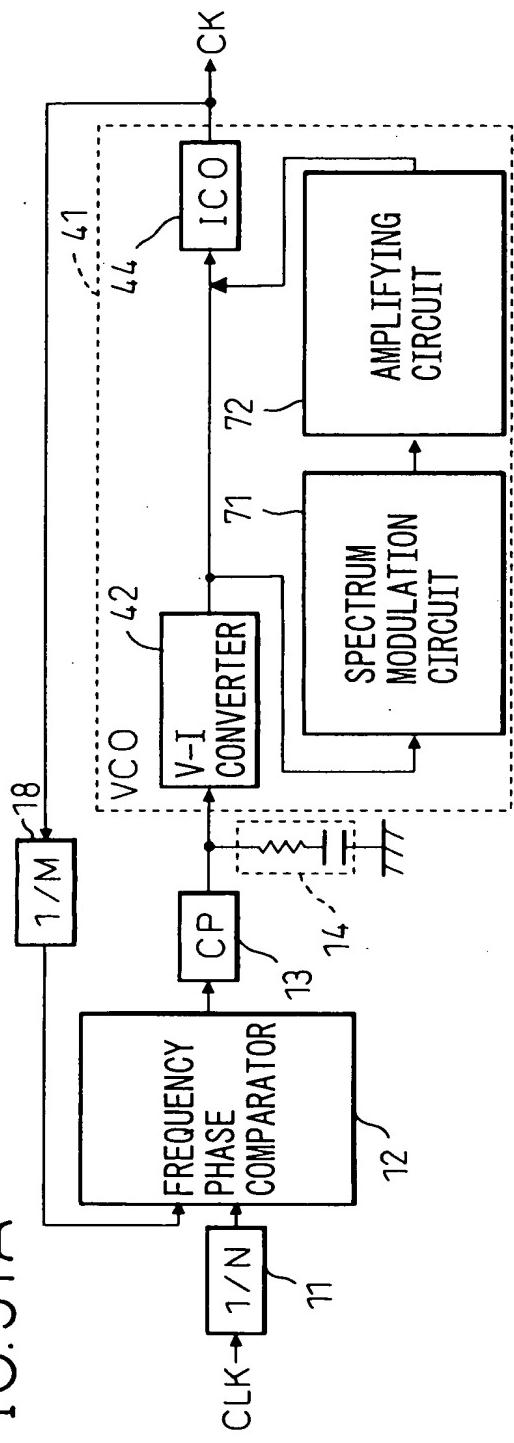
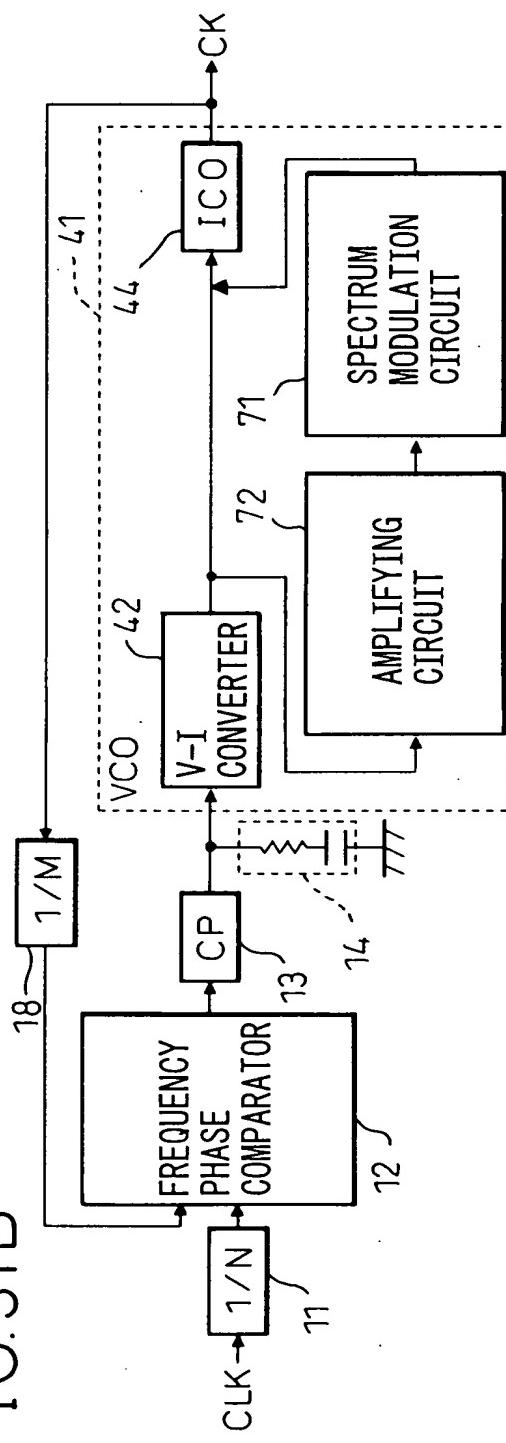


FIG. 31B



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG.32A

AMPLITUDE A

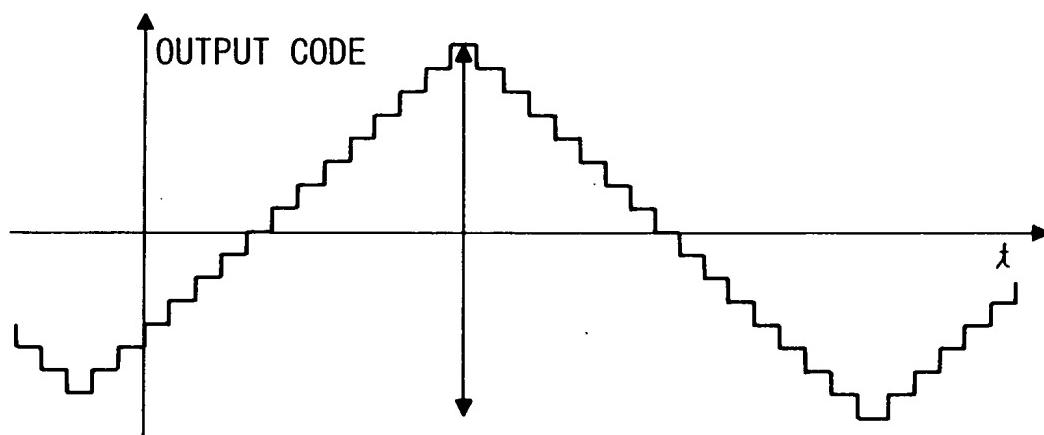
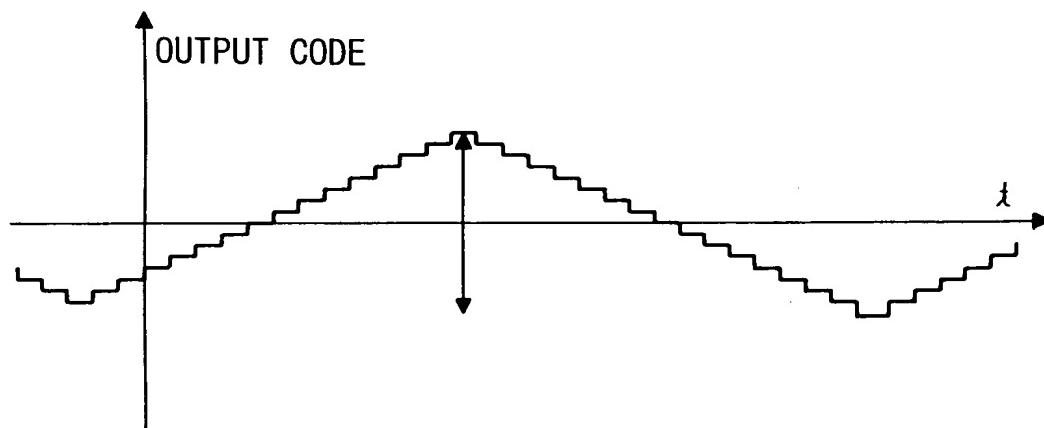


FIG.32B

AMPLITUDE A k/m



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 33

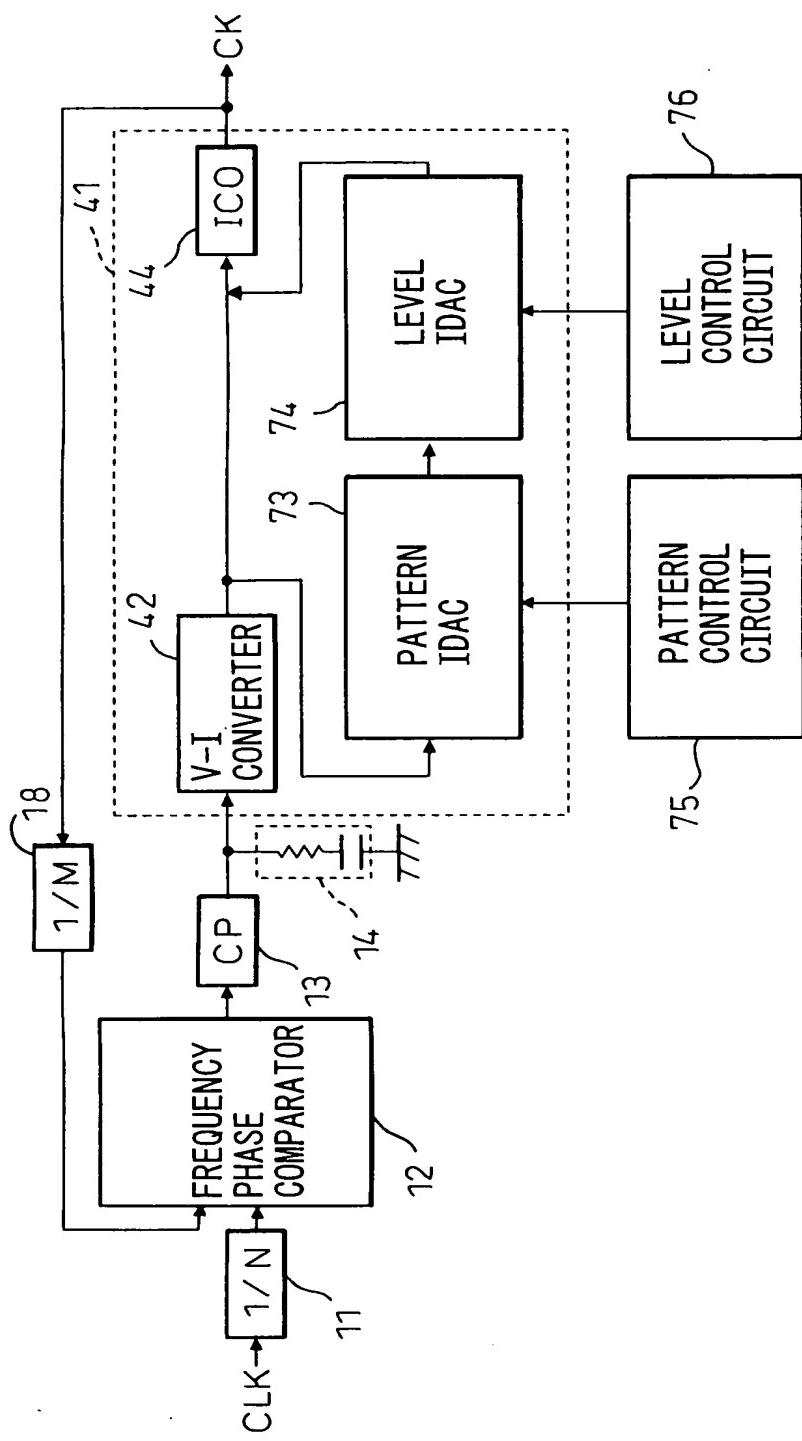


FIG. 34 A

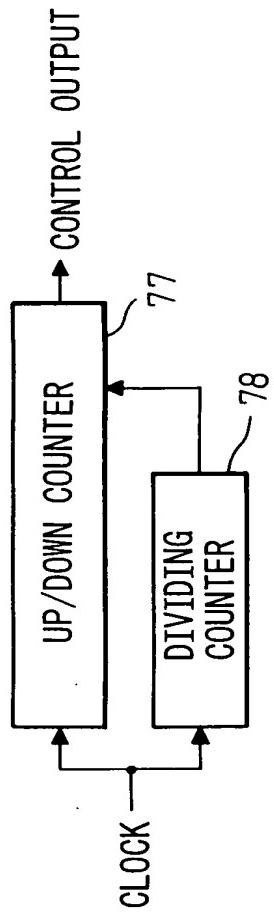


FIG. 34 B

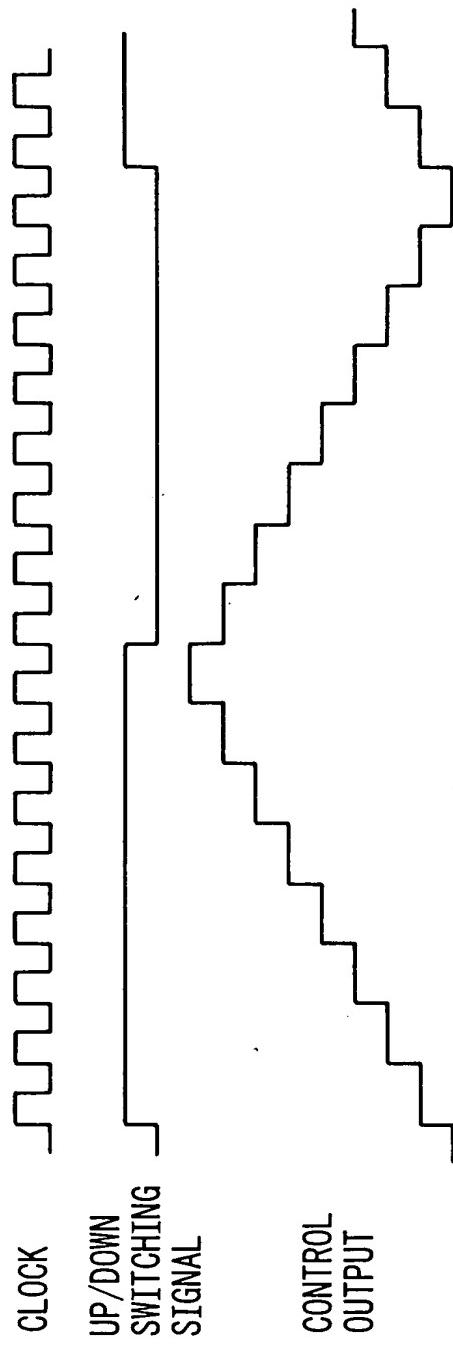
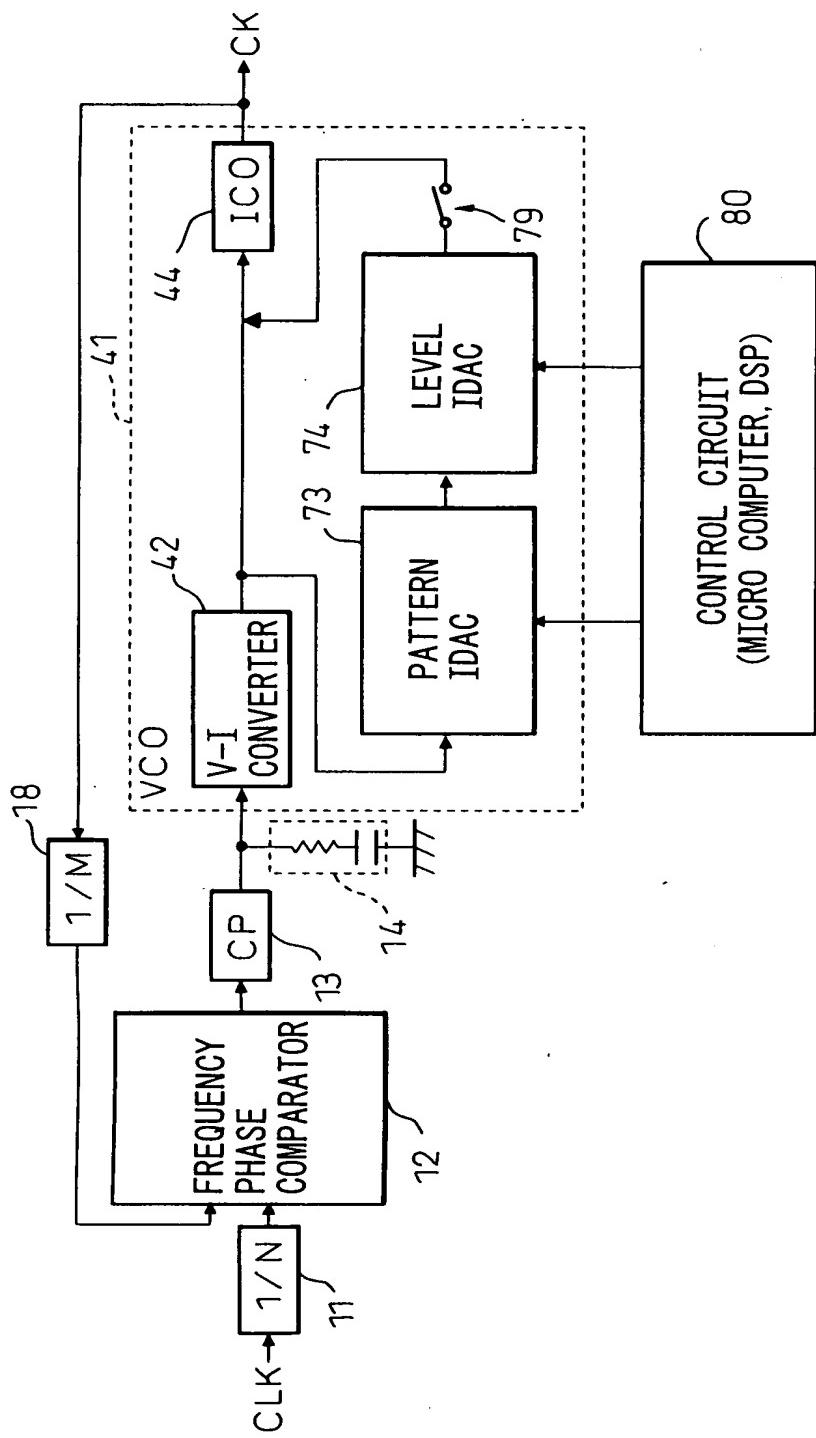


FIG. 35



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 36A

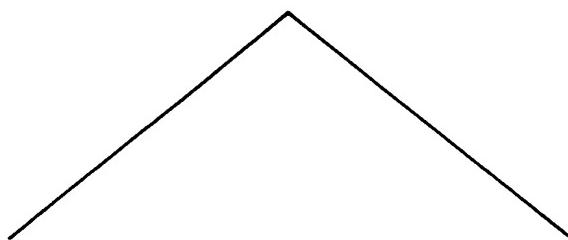


FIG. 36B

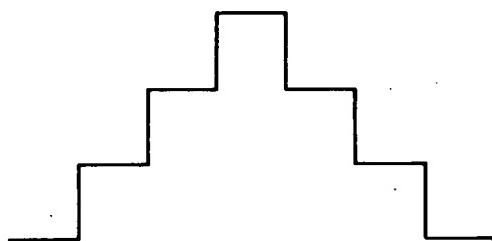
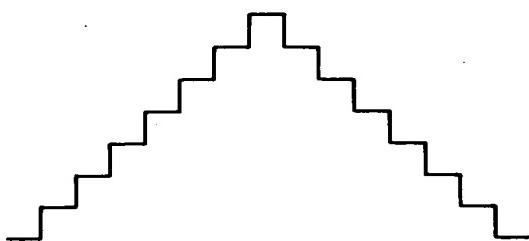


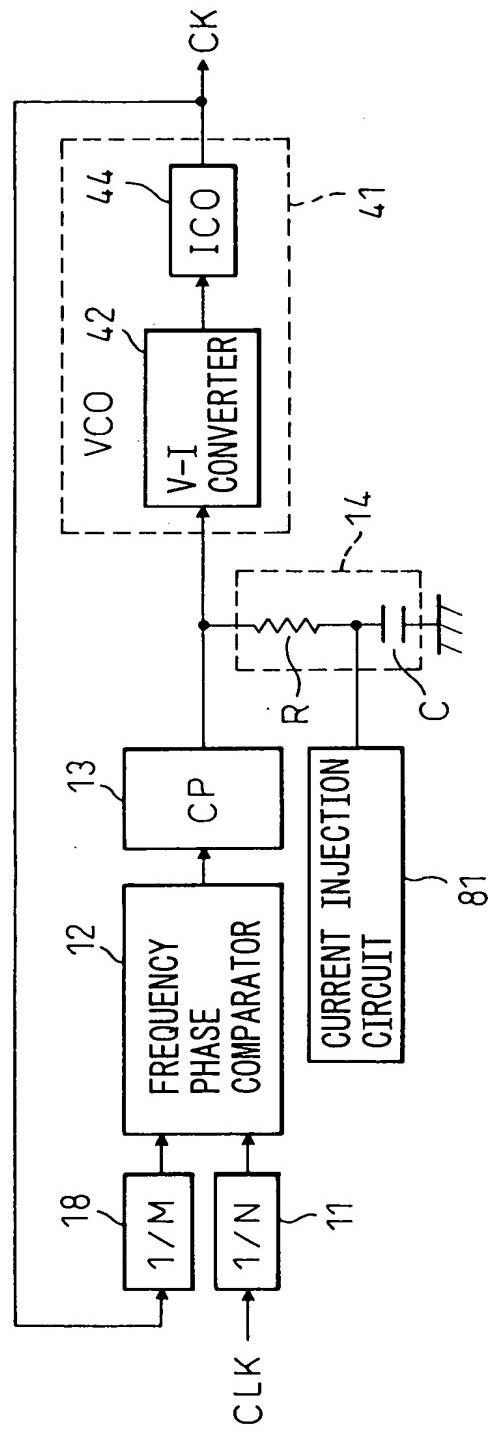
FIG. 36C



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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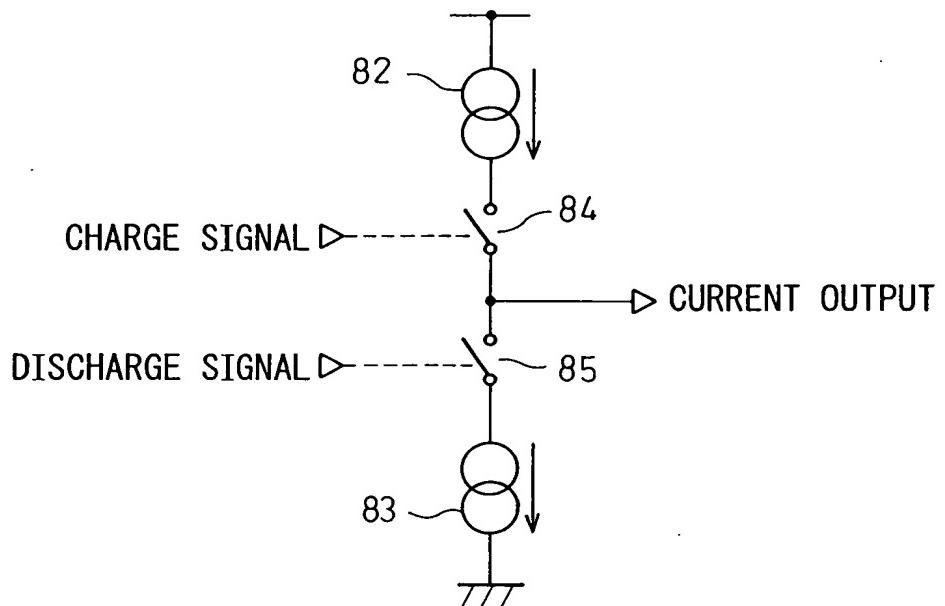
FIG. 37



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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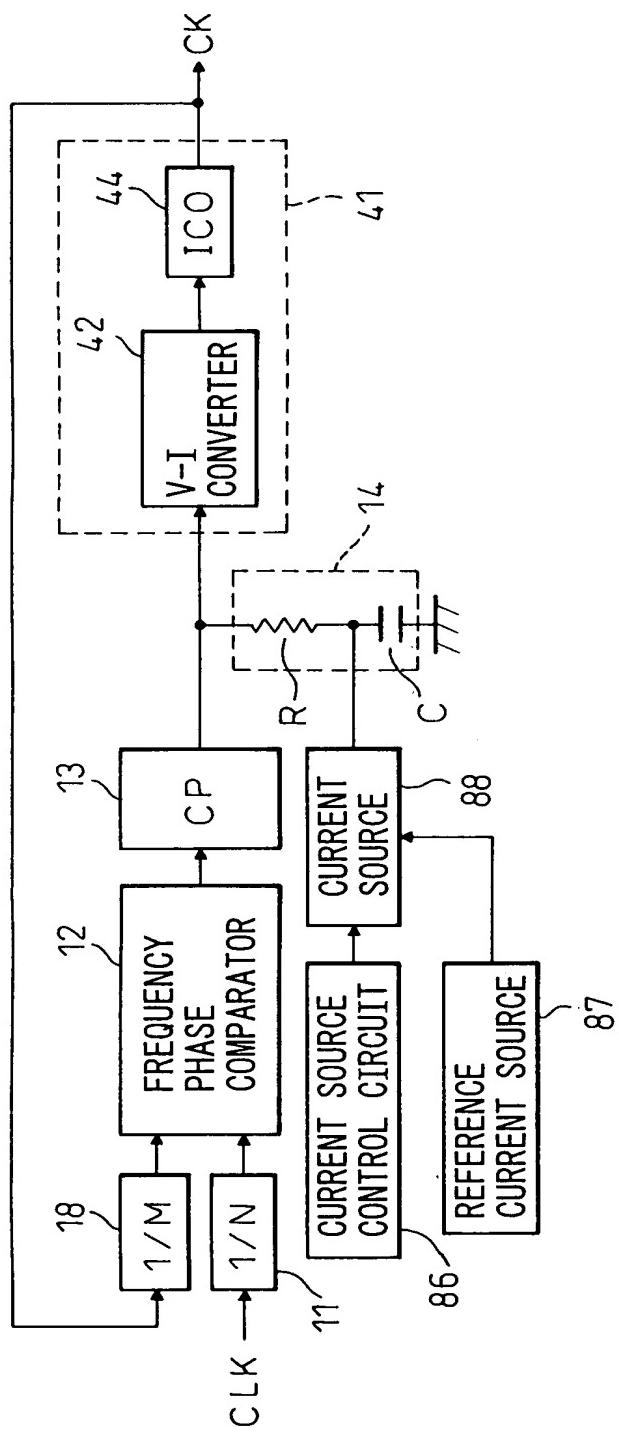
FIG. 38



Title: SPREAD SPECTRUM CLOCK  
 GENERATION CIRCUIT, JITTER GENERATION  
 CIRCUIT AND SEMICONDUCTOR DEVICE  
 Inventor: MIYATA, et al.  
 Appln. No.: Unknown  
 Docket No.: 100021-00138

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FIG. 39



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG.40

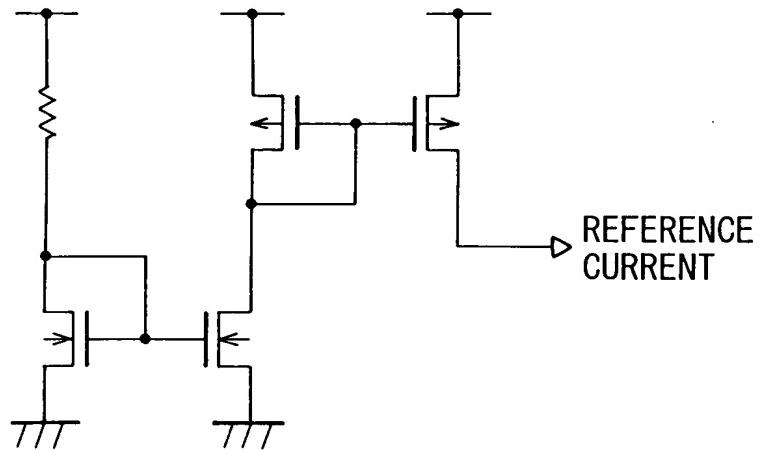
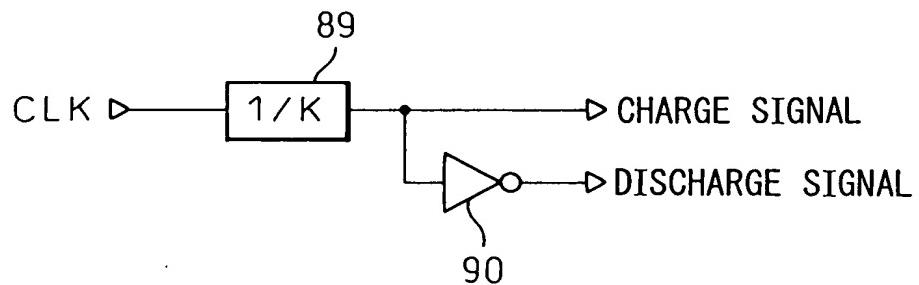


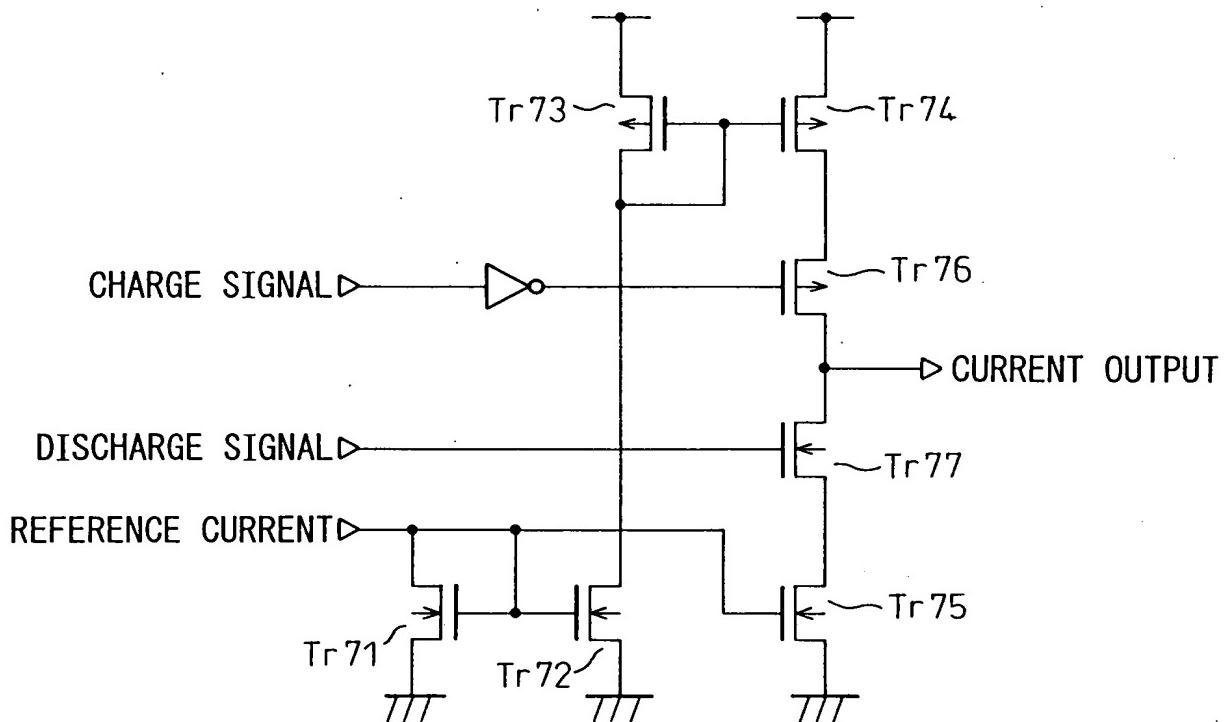
FIG.41



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appn. No.: Unknown  
Docket No.: 100021-00138

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FIG.42



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 43A

CHARGE SIGNAL

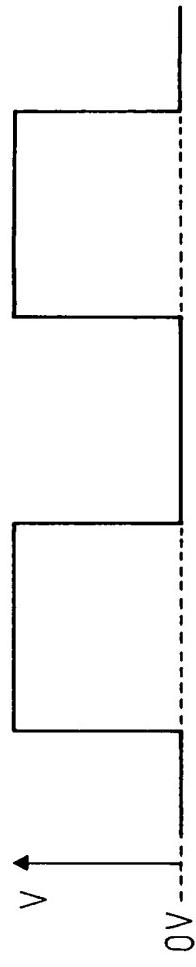


FIG. 43B

DISCHARGE SIGNAL

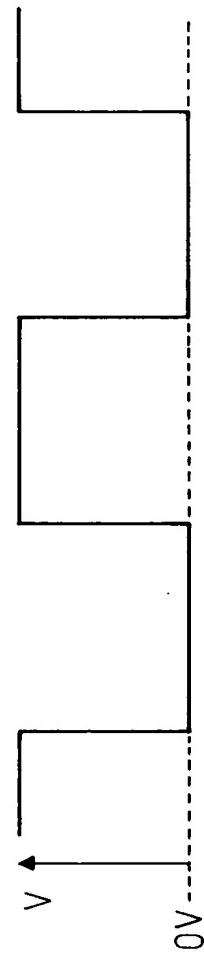


FIG. 43C

CURRENT OF THE  
CURRENT SOURCE

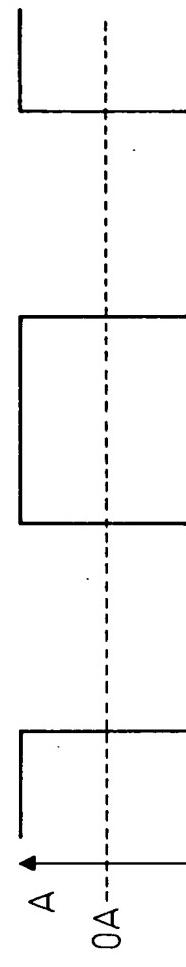
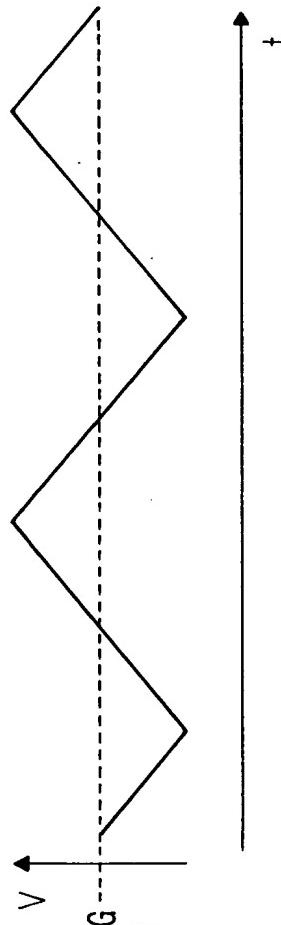


FIG. 43D

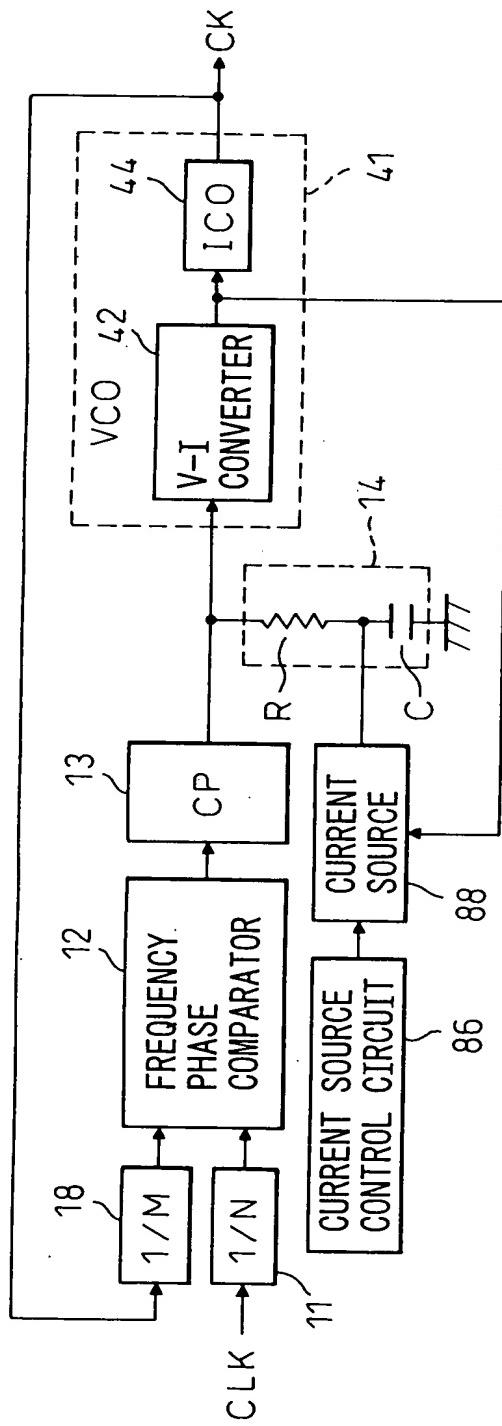
VOLTAGE OF A NODE  
BETWEEN A RESISTOR  
AND A CAPACITOR OF  
A LOOP-FILTER  
(VCO CONTROL)  
(VOLTAGE)



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appn. No.: Unknown  
Docket No.: 100021-00138

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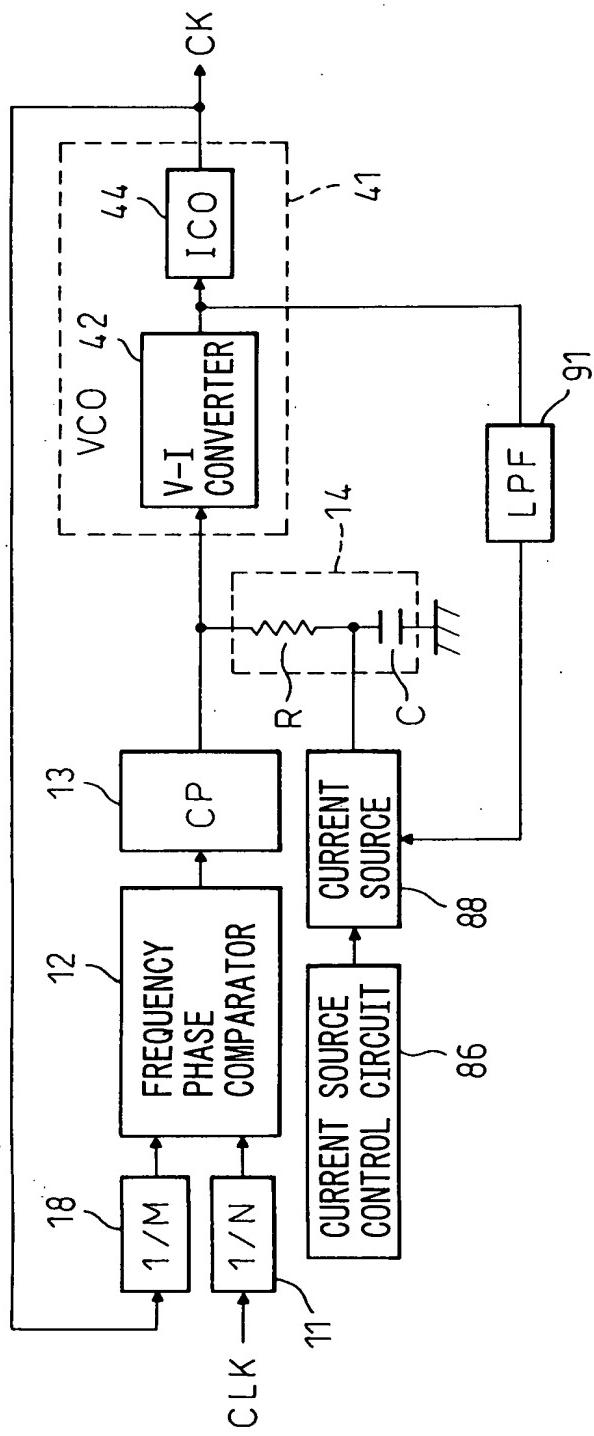
FIG. 44



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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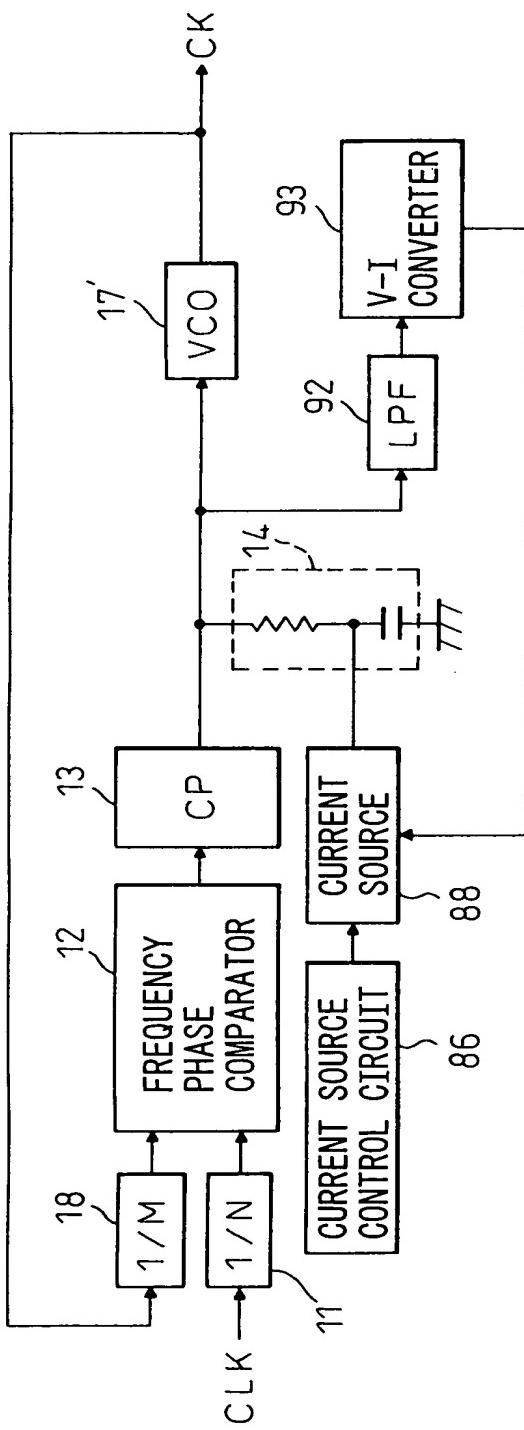
FIG. 45



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appn. No.: Unknown  
Docket No.: 100021-00138

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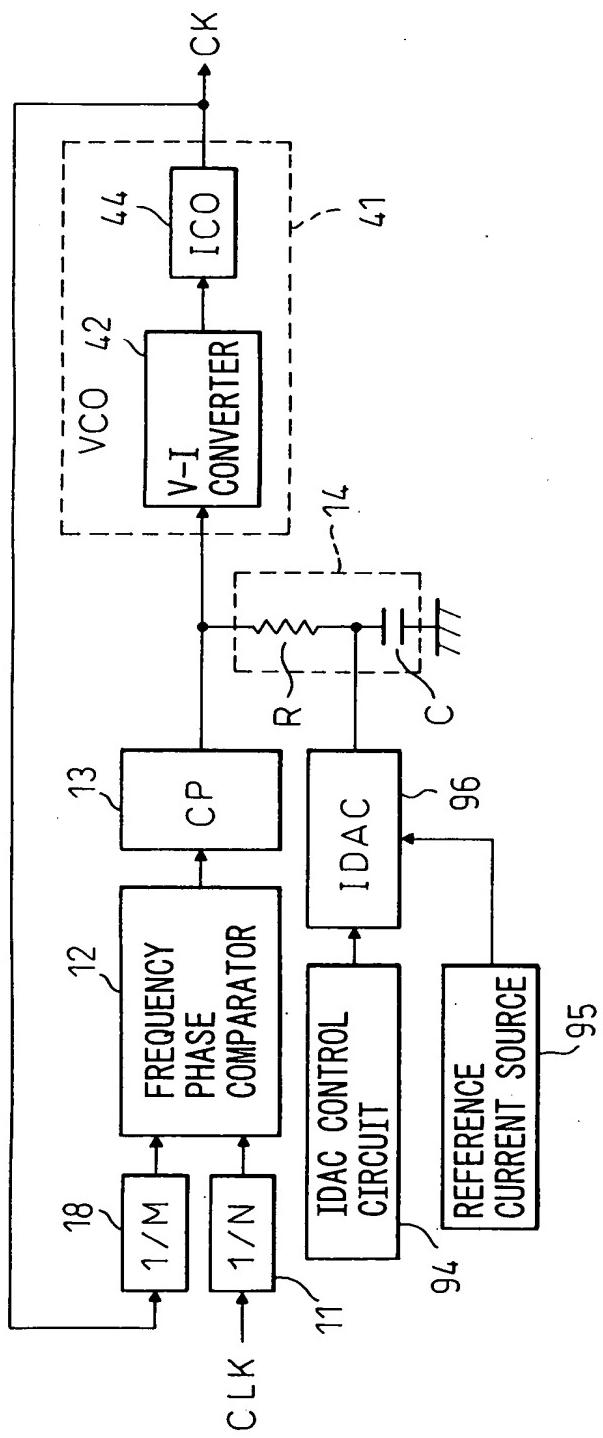
FIG. 46



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appn. No.: Unknown  
Docket No.: 100021-00138

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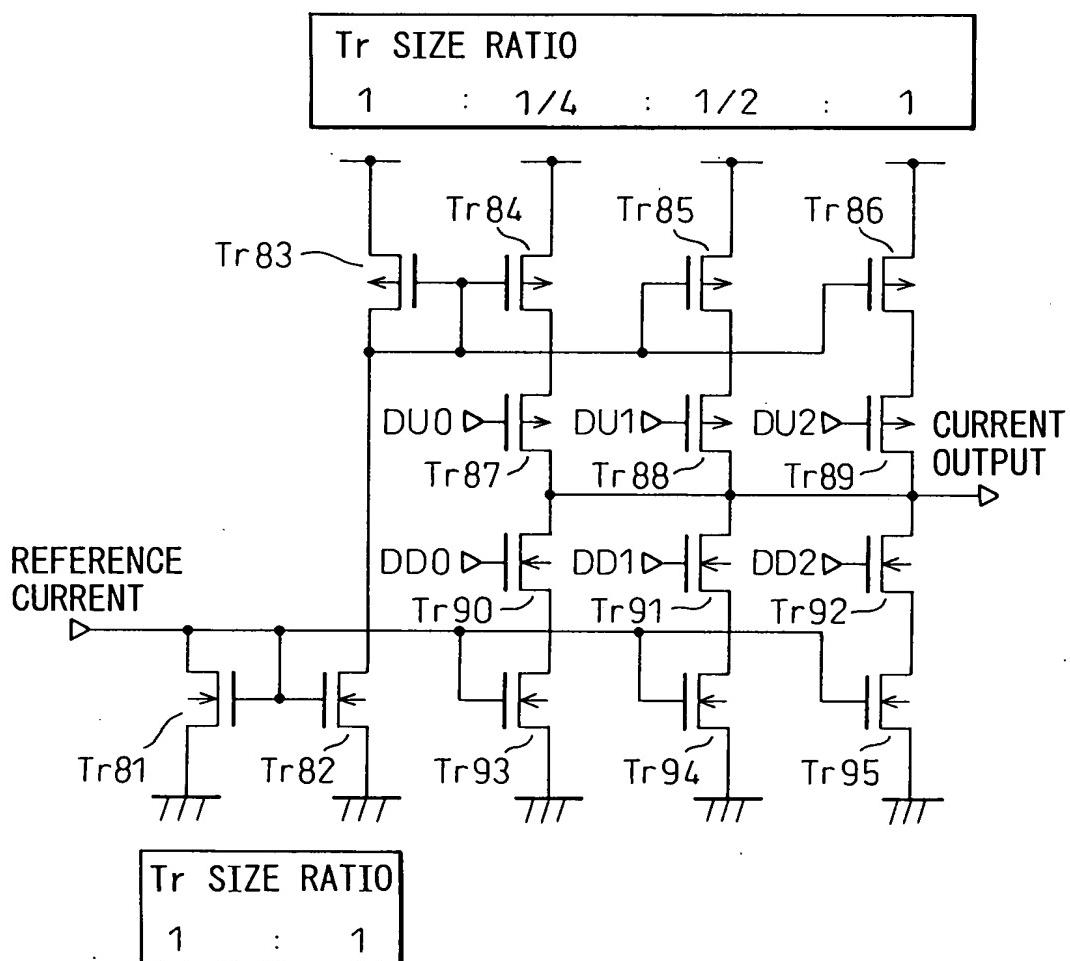
FIG. 47



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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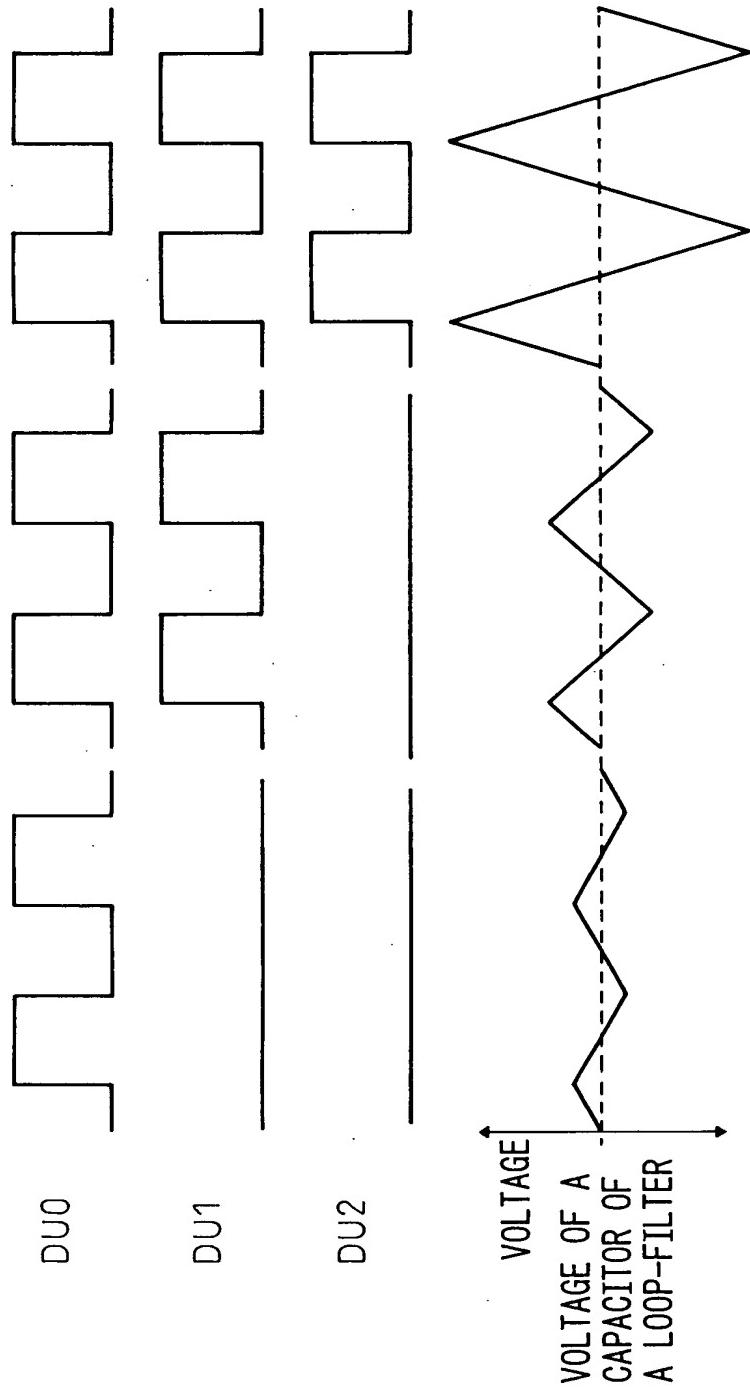
FIG. 48



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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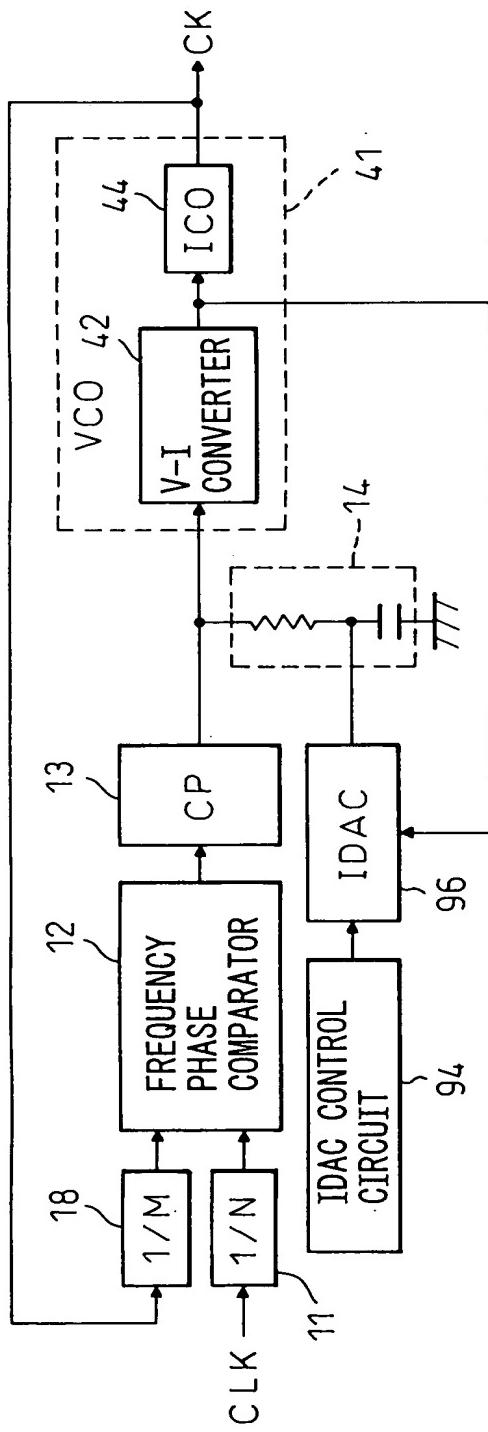
FIG. 49A FIG. 49B FIG. 49C



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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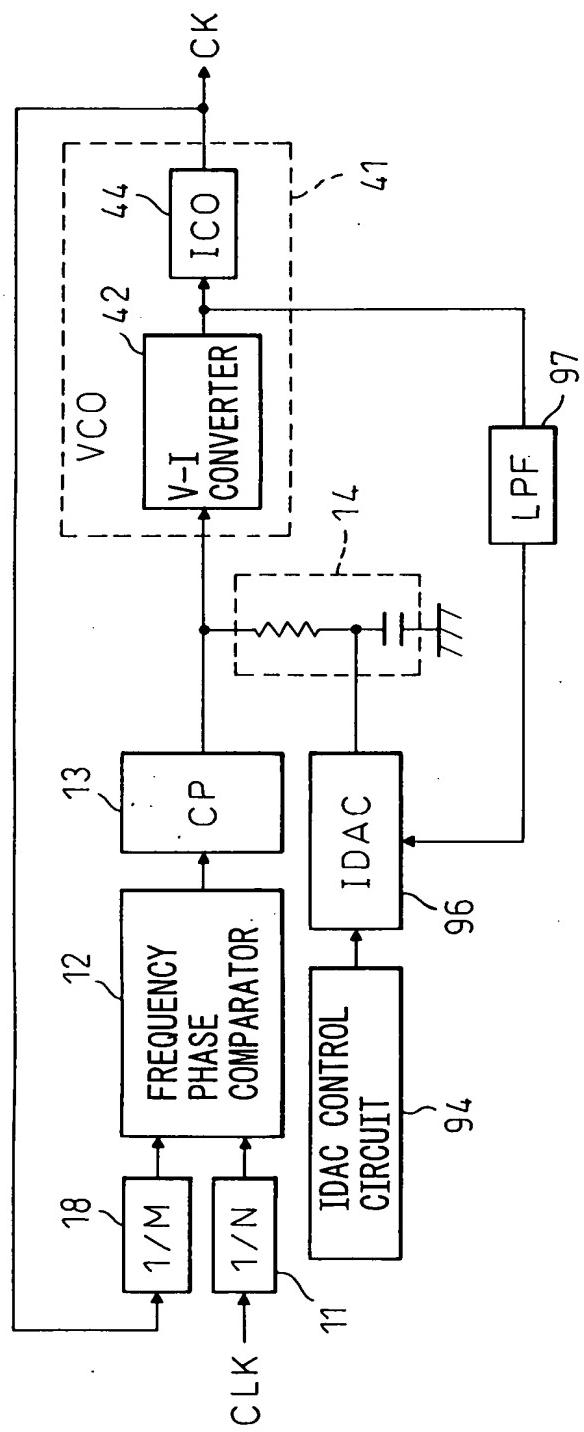
FIG. 50



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appn. No.: Unknown  
Docket No.: 100021-00138

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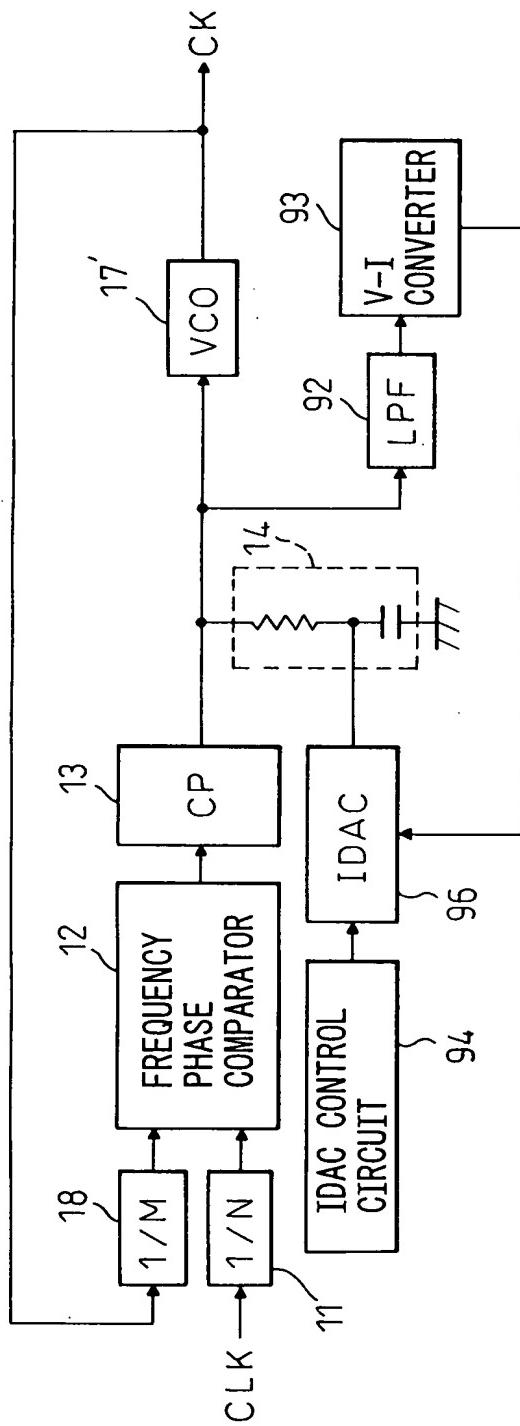
FIG. 51



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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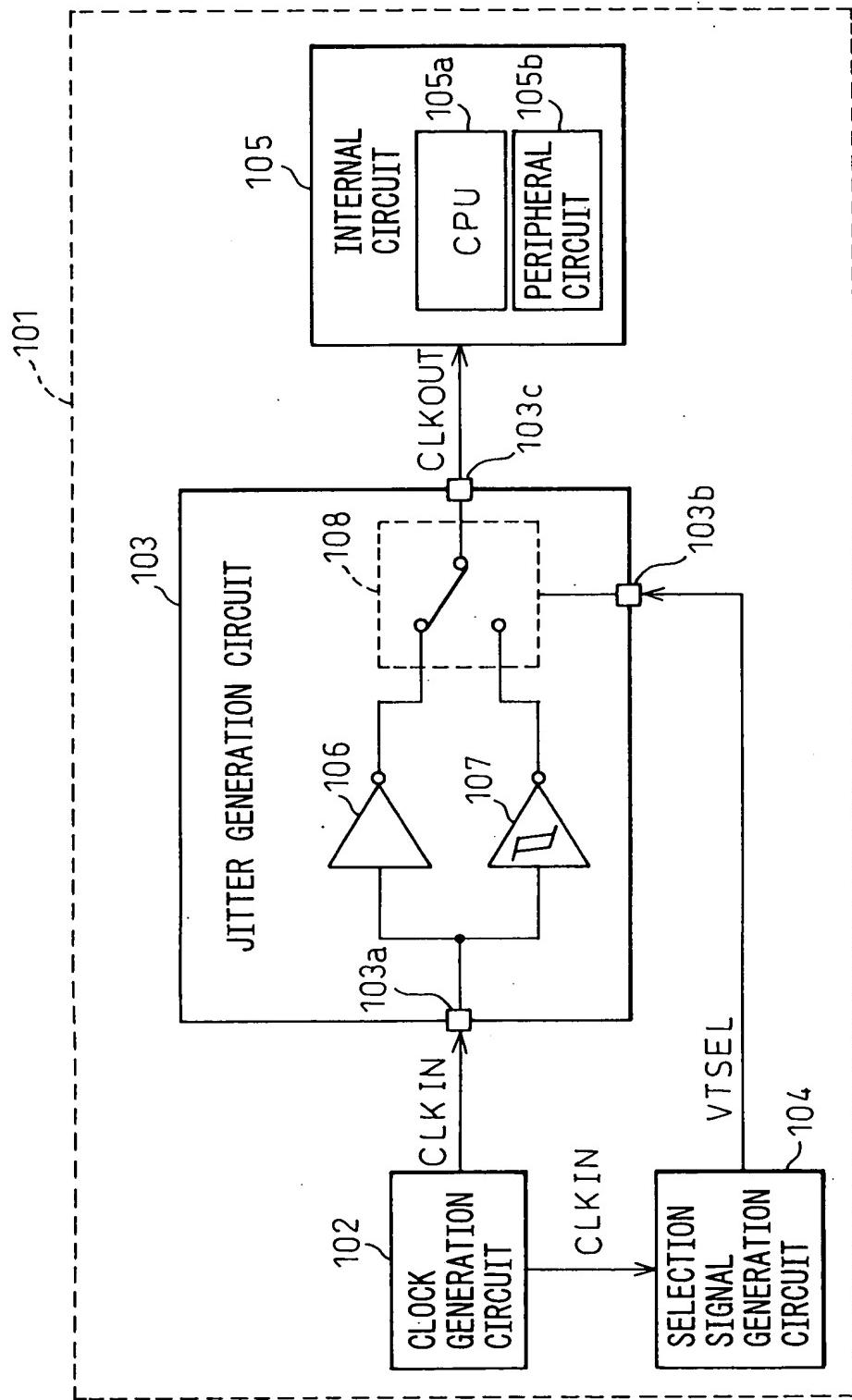
FIG. 52



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 53



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 54

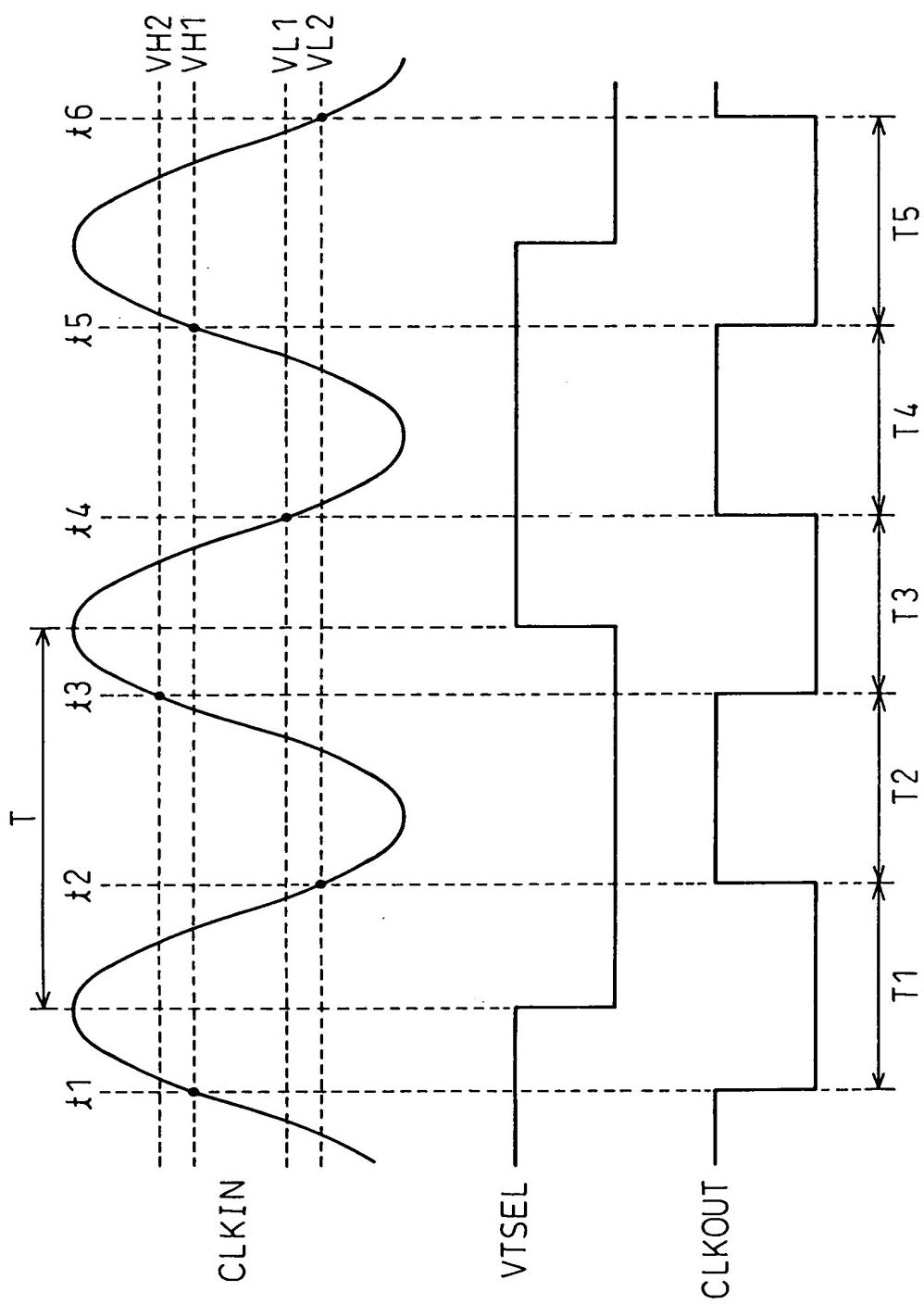
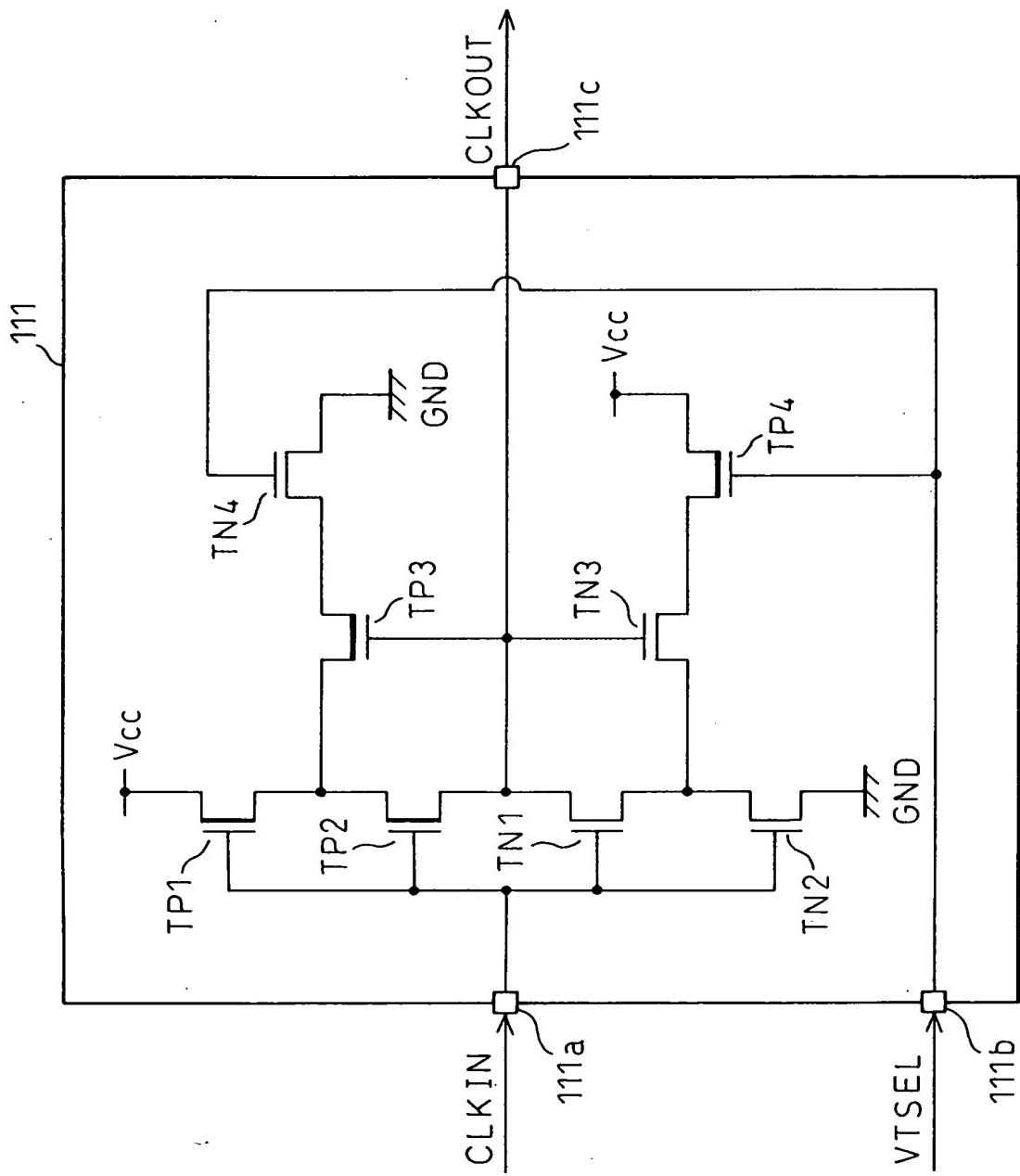


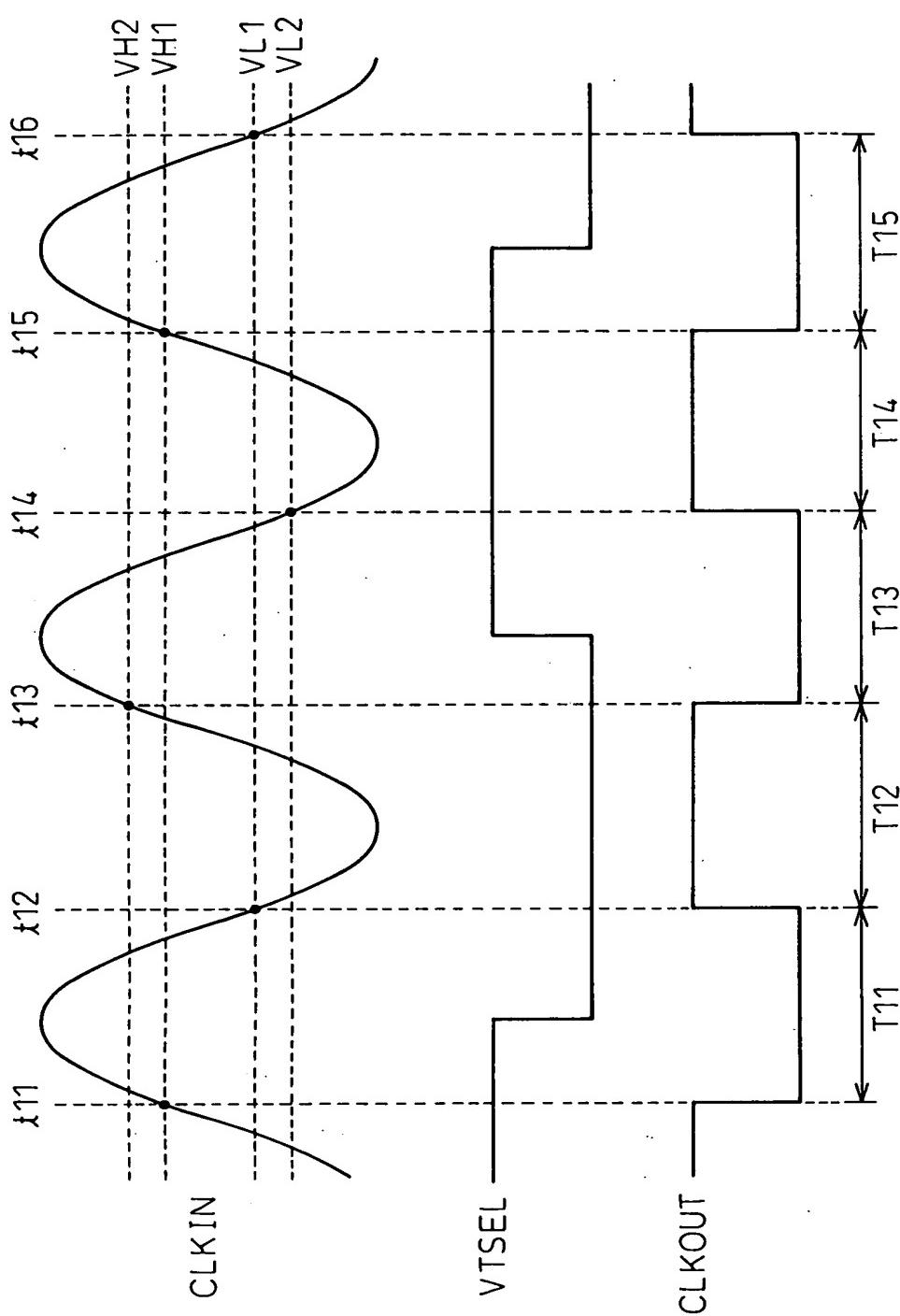
FIG. 55



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 56



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 57

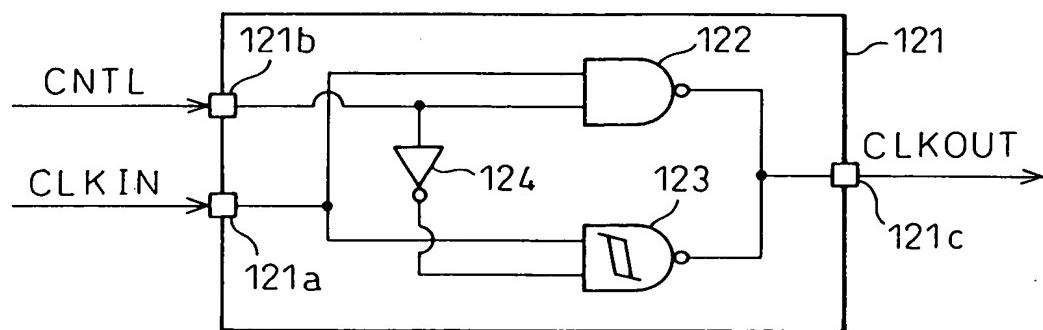


FIG. 58

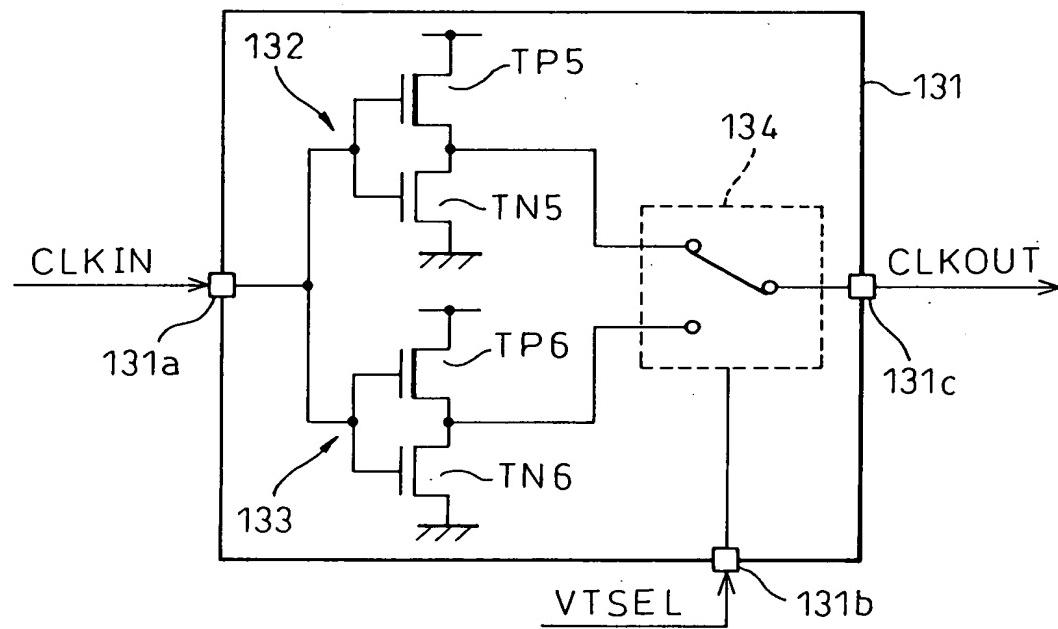
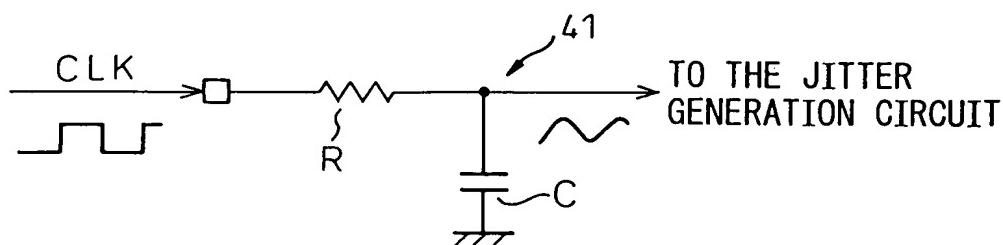


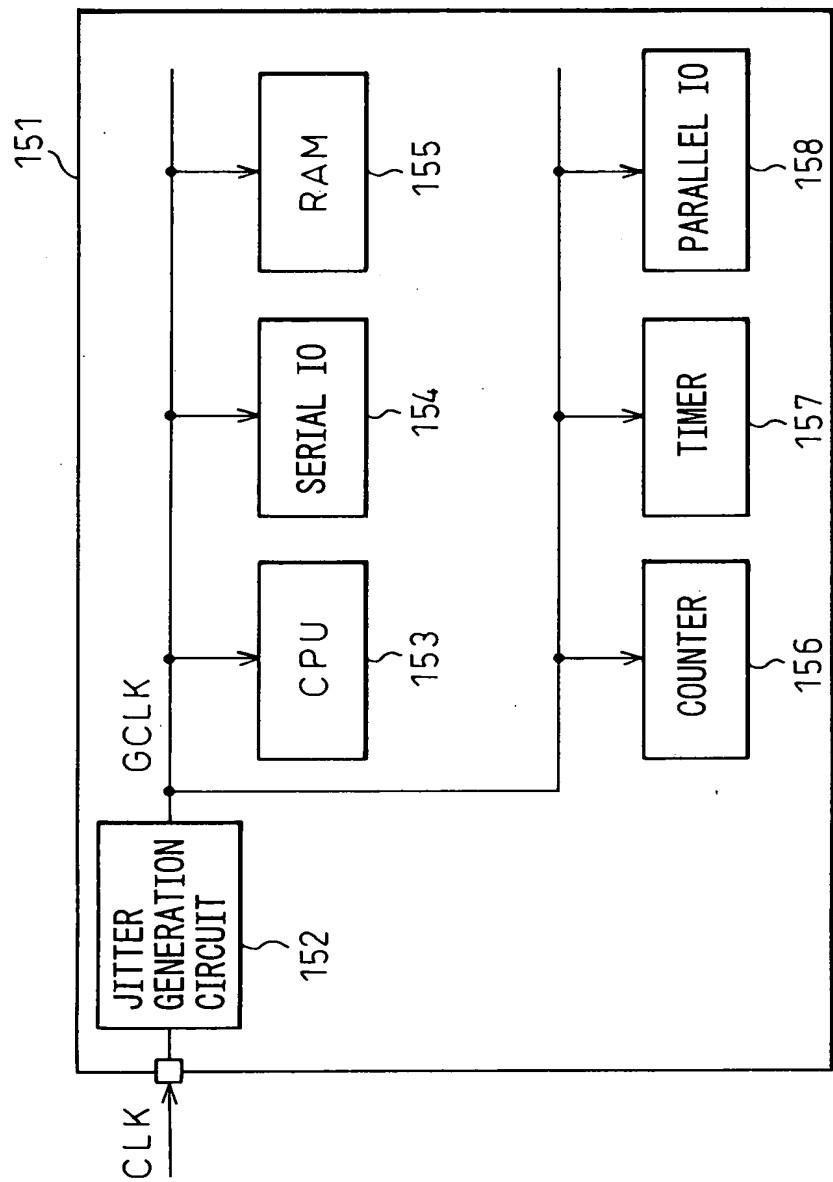
FIG. 59



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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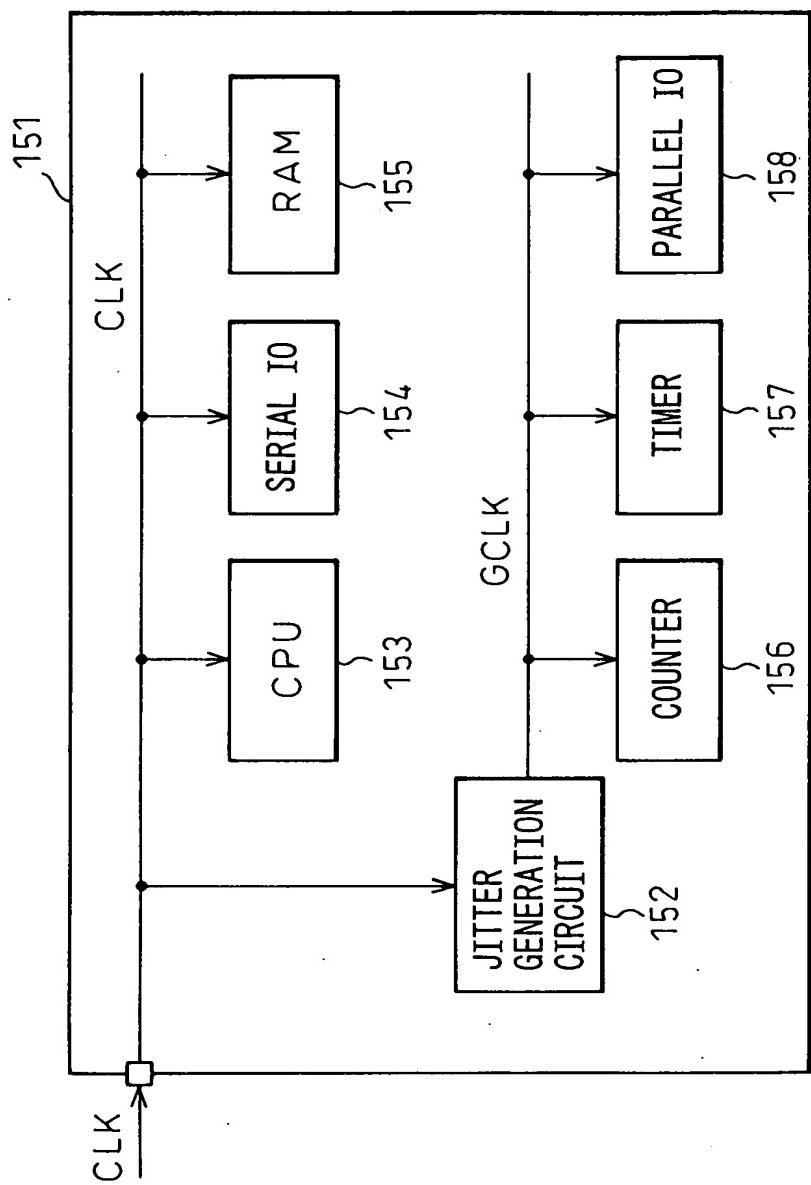
FIG. 60



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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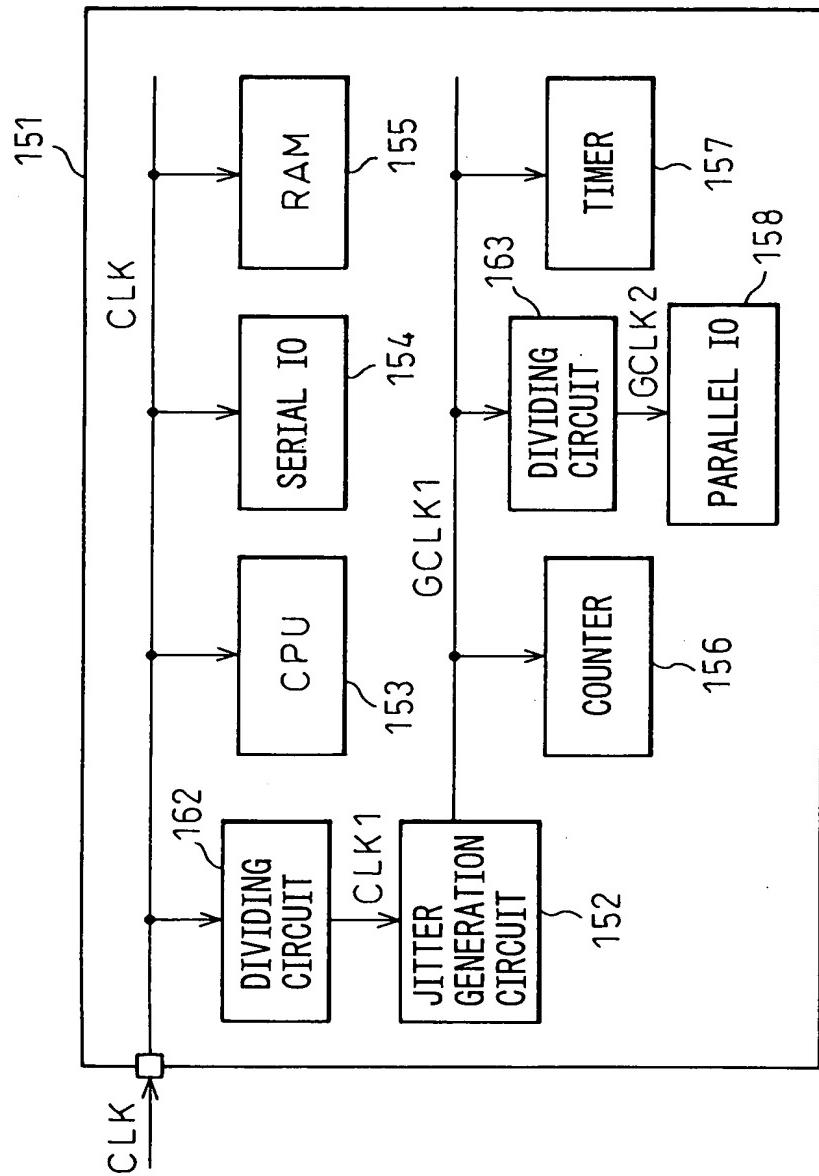
FIG. 61



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 62



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appn. No.: Unknown  
Docket No.: 100021-00138

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FIG. 63

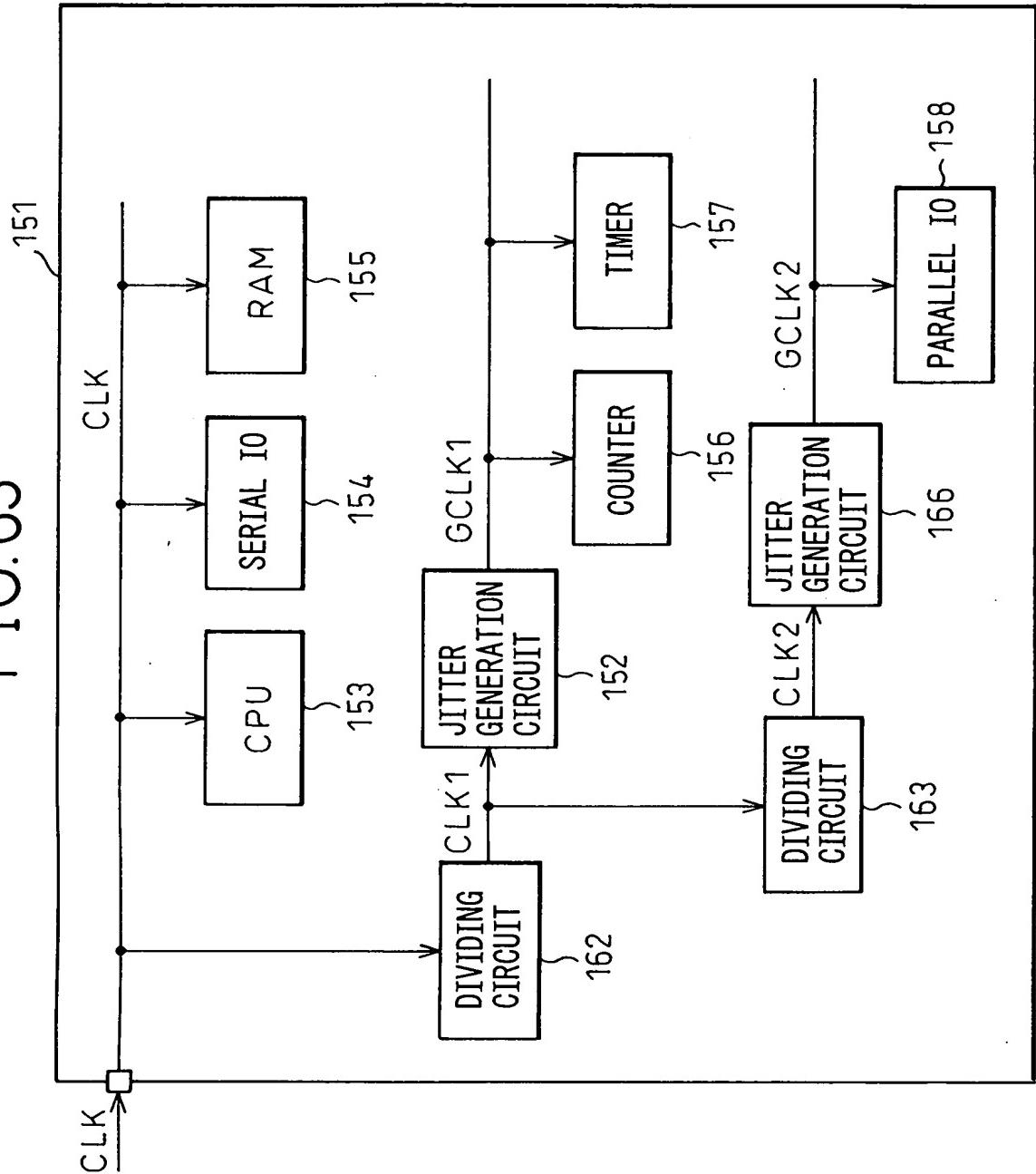
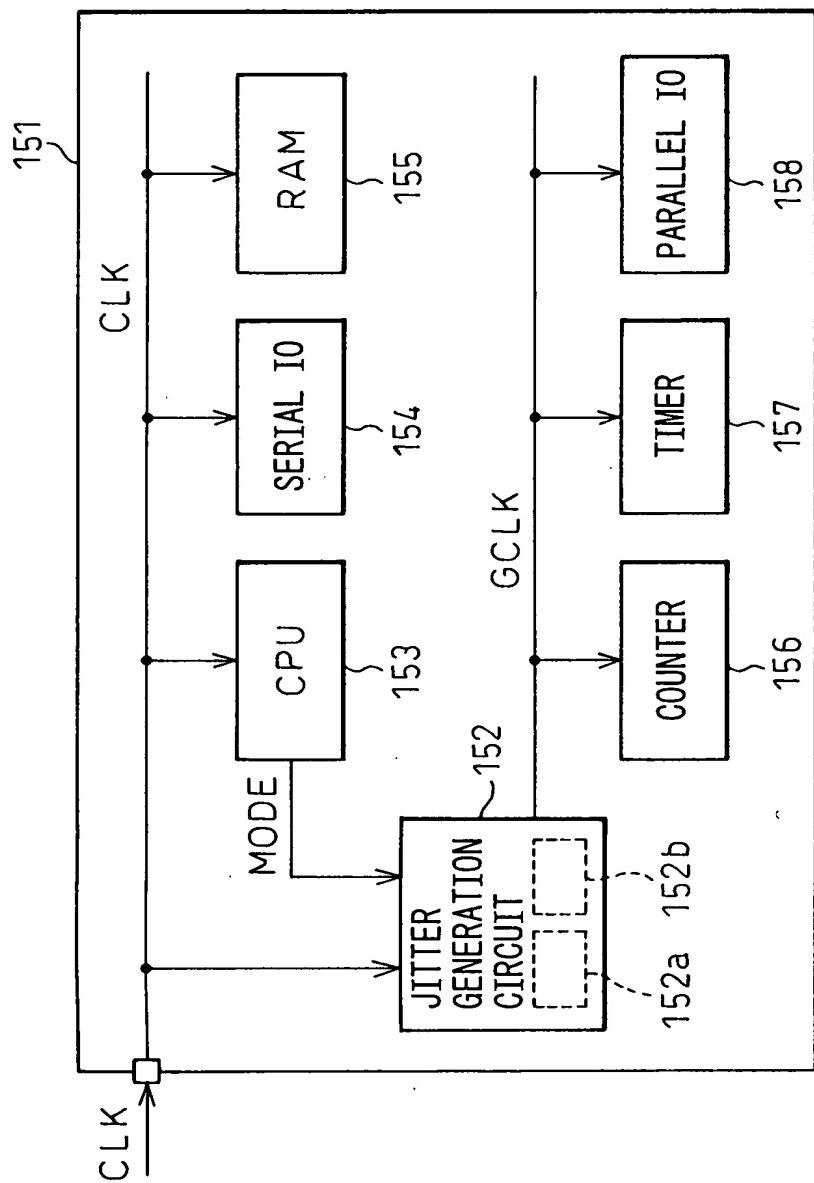


FIG. 64



Title: SPREAD SPECTRUM CLOCK  
GENERATION CIRCUIT, JITTER GENERATION  
CIRCUIT AND SEMICONDUCTOR DEVICE  
Inventor: MIYATA, et al.  
Appln. No.: Unknown  
Docket No.: 100021-00138

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FIG. 65

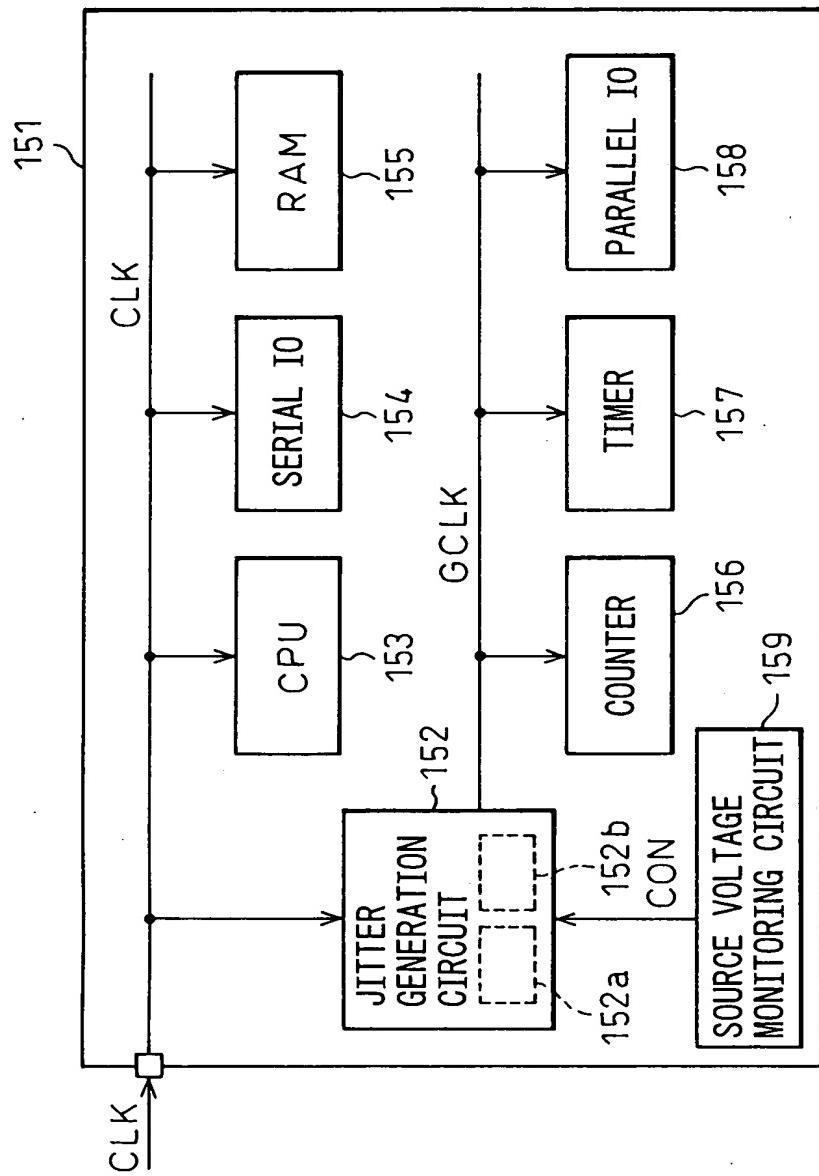


FIG. 66

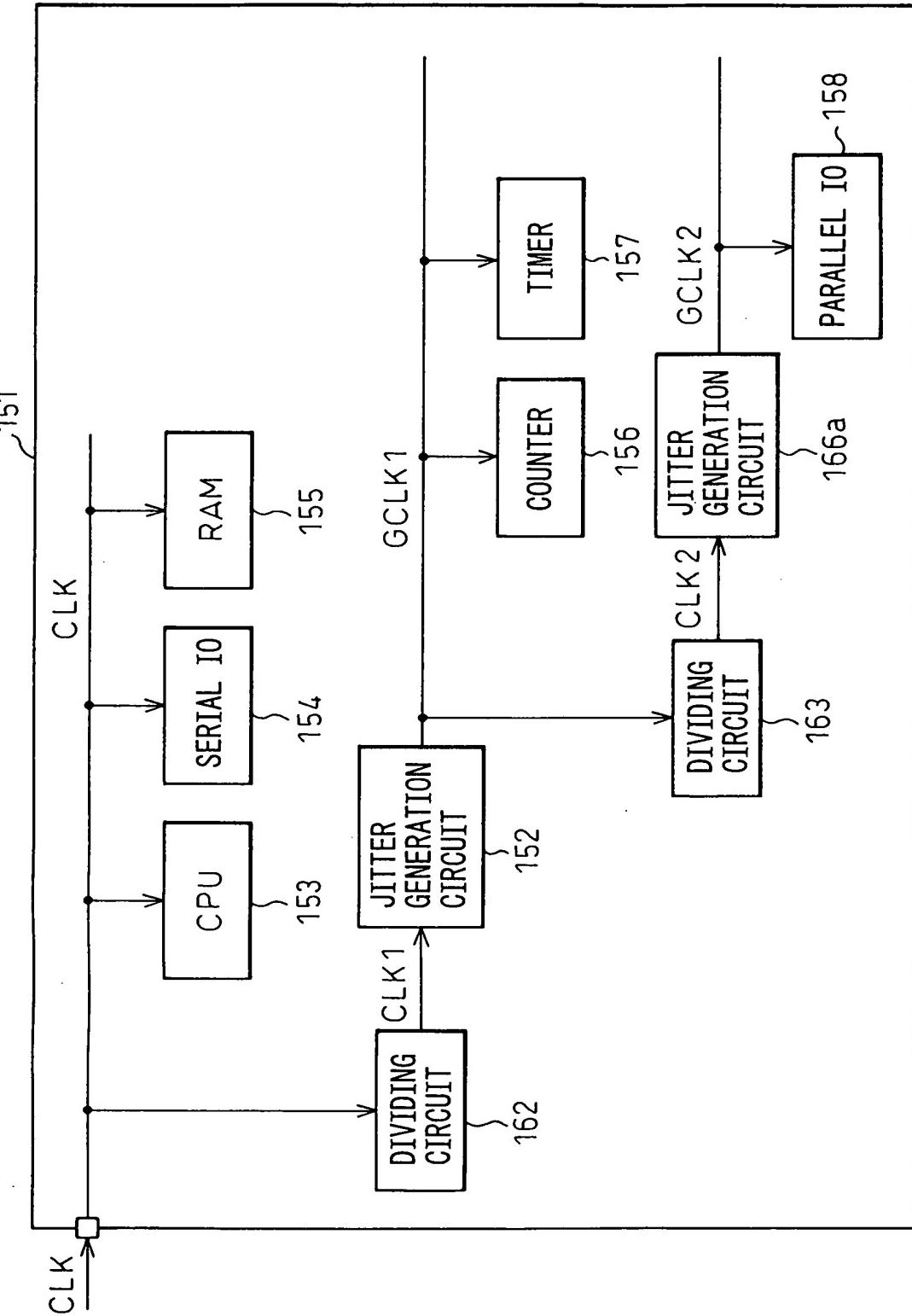


FIG.67

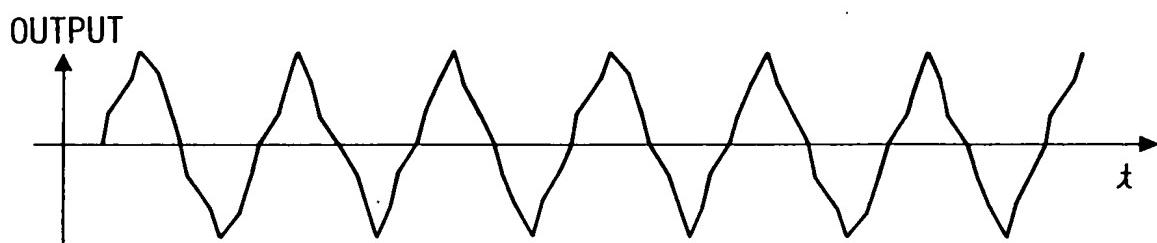


FIG.68

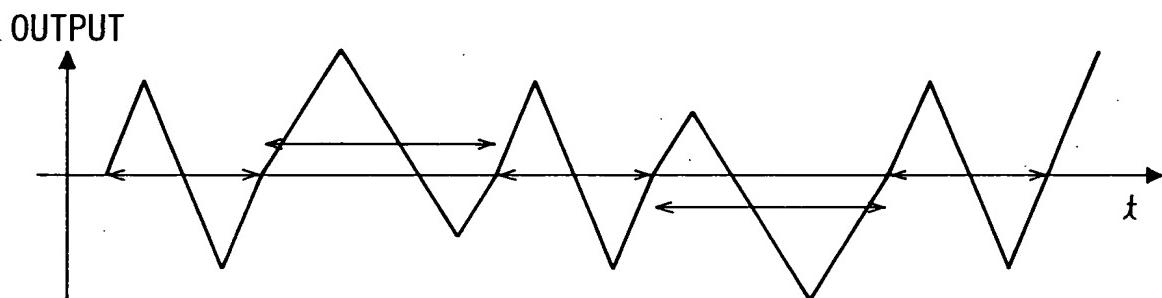


FIG.69

